

THE RELATIONSHIP BETWEEN ADOLESCENT GIRLS AND HORSES:
IMPLICATIONS FOR EQUINE-ASSISTED THERAPIES

A dissertation submitted to
Kent State University College of Nursing
in partial fulfillment of the requirements
for the degree of Doctor of Philosophy

by

Margaret Cuffari Toukonen

August 2011

© Copyright, 2011 by Margaret Cuffari Toukonen
All Rights Reserved

A dissertation written by

Margaret Cuffari Toukonen

Ph.D., Kent State University, 2011

M.S.N., Kent State University, 1998

B.S.N., Southeastern Louisiana University, 1984

A.A.S., Animal Husbandry, 1975

Approved by

Barbara L. Drew, PhD, RN
Chair, Doctoral Dissertation Committee

Claire B. Draucker, PhD, RN
Co-Chair, Doctoral Dissertation Committee

N. Margaret Wineman, PhD, RN
Dean, University of Akron

T. John Akamatsu, PhD
Kent State University

Beth G. Wildman, PhD
Kent State University

Accepted by

Karen W. Budd, PhD, RN
Director, Joint Ph.D. in Nursing Program

Laura Dzurec, PhD, RN
Dean, College Nursing

Toukonen, Margaret C., Ph.D., August 2011

NURSING

THE RELATIONSHIP BETWEEN ADOLESCENT GIRLS AND HORSES:
IMPLICATIONS FOR EQUINE-ASSISTED THERAPIES

Director of Dissertation: Barbara L. Drew, Ph.D, RN

Co-Director: Claire B. Draucker, Ph.D, RN

Most mental health disorders begin in adolescence. Because earlier interventions result in better outcomes, the search for effective therapies for at-risk adolescents has intensified. There is anecdotal evidence that equine-assisted mental health therapy programs improve coping and build skills in adolescent girls with mental health problems. The value of working with horses in a therapeutic modality is presumed to be based on the adolescent girl-horse relationship, yet the nature of this relationship has not been described or explained. The purpose of this research was to describe the essence of the relationship between adolescent girls and horses in order to obtain a greater understanding of the potential benefits of equine-assisted therapies for adolescent girls.

An interpretive qualitative approach, based on Heideggerian philosophy, was used to examine the nature of the relationship from the perspective of the adolescent girls. To provide a broad understanding of the relationship, two groups of adolescent girls were purposefully sampled (N = 19). One group consisted of girls who had a variety of behavioral and emotional problems and were participating in an equine-assisted therapy program (n = 9). The second group included girls from local riding stables who were naturally attracted to horses and rode for pleasure (n = 10). Using open-ended questions, the girls were asked to describe their relationships with horses. The interviews were audio taped and transcribed. The data were analyzed in a disciplined and systematic manner

according to procedures outlined by Diekelmann and Allen (1989). The themes identified were *sharing physical affection, being there for each other, being connected, dealing with stress, being good at something, and being a better person.*

The findings illustrate that adolescent girls derive important benefits from their relationships with horses. The experiences of girls with their horses during equine-assisted therapy can provide a context and focus for psychotherapy and counseling, suggesting that the two types of therapy should be integrated. This study offers promising information into understanding the relationship between adolescent girls and horses and a foundation for future research in this area.

ACKNOWLEDGEMENTS

I would like to thank many of the individuals who helped me complete this dissertation study. My dissertation chair, Dr. Barbara Drew, and my co-chair, Dr. Claire Draucker, were an inspiration to me with their knowledge, enthusiasm, and research contributions. They gave me continuous support, guidance, and encouragement. I could not have asked for a better team of mentors. I also want to thank my dissertation committee for all of their time and effort they put into helping me complete this project.

I want to thank my dear friends and colleagues for leading me through this process offering friendship and guidance all the way. At my workplace, I am grateful for Dr. Vida Lock and her help in making it possible for me to complete this dissertation.

In my personal life, this project would not have been possible without the never-ending support and encouragement that I received from my husband, Dale. His patience and understanding of my many hours of work were commendable. He never gave up on me even when I felt ready to give up on myself. I want to thank my two children, Rick and Kay, for their valuable technical support. All of my family, including my sisters, were always there for me and helped me persevere through personal obstacles that I experienced while working on this dissertation. I could not have gotten through this without them. I feel so fortunate to have such wonderful people in my life.

I want to thank the stable owners and the directors of the therapeutic riding program for allowing me to work with their girls. I am especially grateful for the adolescent girls who shared their stories and offered insight to their relationships with horses. Finally, I cannot forget to acknowledge Mel, the most influential horse in my life. He passed away while I was working on this project -- may he rest in peace.

TABLE OF CONTENTS

CHAPTER I.....	1
History of Human-Animal Relationships.....	1
Importance of Horses.....	2
Value of Pet Ownership and Visitation.....	3
Use of Animal-Assisted Activities	4
Therapy Work with Horses	4
Little Research or Understanding of the Human-Horse Bond	6
Mental Health Concerns of Adolescents.....	7
The Study	8
CHAPTER II: LITERATURE REVIEW	10
Theories of Human-Animal Relationships.....	10
Attachment Theory	11
Children and Attachment Theory	12
Social Support Theory.....	16
Biophilia	19
Summary.....	20
Animals and Physical Health.....	21
Animals and Psychological Health.....	24
Animals and Children	27
Summary.....	28
Animal-Assisted Activities and Therapy	29
Animal-Assisted Therapy Research.....	30
Adults and Animal-Assisted Therapy.....	31

Geriatrics and Animal-Assisted Therapy	32
Children and Animal-Assisted Therapy	33
Summary	35
Human-Horse Relationships	36
Summary	38
Equine-Assisted Psychotherapy	38
Equine-Assisted Therapy Research	40
Equine-Assisted Therapy Research with Adults	40
Equine-Assisted Therapy Research with Children.....	42
Summary	45
Adolescent Girl Concerns.....	45
Summary	48
CHAPTER III: METHOD	49
Philosophical Foundation	50
Recreational Riding Centers.....	53
Therapeutic Riding Center.....	53
Recruitment	54
Interviews	56
CHAPTER IV: RESULTS.....	60
Settings	61
Findings	64
The Nature of the Relationship	66
The Benefits of the Relationship to the Girls	71
Exemplars	76

Recreational Riding Group: M.O.....	76
Therapeutic Riding Group: D.H.....	79
CHAPTER V: DISCUSSION	84
Summary of Findings	84
(Research question).....	84
(Aim 1).....	85
(Aim 2).....	86
(Aim 3).....	86
Findings Related to the Extant Literature.....	87
Limitations of the Study	90
Future Research.....	91
Clinical Implications.....	92
Conclusion	94
REFERENCES.....	95
Appendix B	121
Appendix C.....	123
Appendix D	124
Appendix E-1.....	125
Appendix E-2.....	126
Appendix F.....	127
Appendix G	128

CHAPTER I

The phenomenon of the adolescent girl-horse relationship is generally recognized as a significant affiliation that is frequently talked about and accepted, but not well understood or explored. Inquiry into this phenomenon is needed, particularly due to the proliferation of therapeutic modalities that use horses. The purpose of this research was to describe the essence of the relationship between adolescent girls and horses in order to obtain a greater understanding of the potential benefits of utilizing equine-assisted therapies with adolescent girls. This chapter describes human-animal relationships and the history of therapeutic work with animals. Mental health concerns of adolescent girls, often addressed in equine-assisted therapies, are described. Finally, the study is introduced.

History of Human-Animal Relationships

Throughout history, animals have been important in the lives of humans. Relationships between animals and humans were initially utilitarian but in many cases have evolved to offer companionship. Evidence of human-animal relationships have been found on cave dwelling walls and in artifacts included in the tombs of ancient Egyptian mummies (Barba, 1991).

The nature of human relationships with horses are very unique and have varied throughout time depending on human needs. Horses have fulfilled human needs by providing transportation, recreation, as well as companionship. The horse's ability to carry humans has had the greatest impact on the relationship (Robinson, 1999). Human beings are both predator and prey animals. As predators, humans were capable of domesticating the cat and the dog, but it was the prey aspect of the human psyche that formed the relationship with the horse (Kohanov, 2001). Horse survival demands that they be very sensitive and in-tune to the environment around them. The human-horse relationship requires the human to tune into the horse's sensitivity. This prey instinct makes the human-horse relationship unique. Horses appear to respond to the internal feelings and intentions of humans and ignore the outward expressions of these emotions (McCormick & McCormick, 1997; Roberts, Bradberry, & Williams, 2004). For example, if an individual felt fearful of a horse yet attempted to act confident, the horse would pick up on the person's fear. The human-horse interaction is very different than the human-dog relationship or the human-cat relationship. The size of the horse in comparison to their human partners can generate an element of danger in the interaction that is not often present with companion animals such as dogs and cats. Another difference in the human-horse interaction is the high level of body-to-body contact between humans and horse when they are being groomed or ridden (Brandt, 2004).

Importance of Horses

Horses are important to many people recreationally. Horses are very expensive to keep, and people often make great sacrifices to do so (Robinson, 1999). There are 6.9 million horses in the U.S.. There are 718,954 people in the U.S. who participate in

showing horses and 906,023 people who ride horses recreationally (American Horse Council, 2005).

Adolescent girls, in particular, are known to form a strong attachment to horses (Brown, 1984). There appears to be a curious, almost magical, relationship that exists between some girls and horses. Many authors have written about these relationships, and horse facilities are filled with girls enthralled with horses. “Horse crazy” girls line their bedroom shelves with horse figurines and beg their parents to buy them a horse. Over 77% of the members of all equine-related non-racing organizations in the United States are female (American Horse Council, 2005).

Value of Pet Ownership and Visitation

Pets are an important part of our culture. More than 75% of U.S. households with children have at least one pet (Walsh, 2009a). Simply petting an animal helps people in general feel calmer in their environment and express themselves more openly (Baun, Oetting, & Bergstrom, 1991). Pets reduce stress and promote relaxation (Baun et al., 1991). Animals are helpful as social lubricants in that they are often the initial focus of a conversation and, as a result, decrease loneliness. Dogs in public parks, for example, expose their owners to encounters with strangers and help establish conversations and trust (Allen, 1999). Research has revealed that the physical benefits of pet ownership include lowered blood pressure, cholesterol, and triglycerides (Anderson, Reid, & Jennings, 1992). Pet owners have an increased one-year survival rate after discharge from a coronary care unit (Friedmann, Katcher, Lynch, & Thomas, 1980). Adults in nursing homes that have pet visitations show improved health, psychosocial functioning and life satisfaction, as well as decreased depression (Francis, Turner, & Johnson, 1985). Pets

have been identified through research to be helpful for individuals with mental health issues (Beck, 2005).

Use of Animal-Assisted Activities

Over the last few decades, animal-assisted activities have become recognized as a form of physical, social, and psychological healing for a variety of conditions. Animal-Assisted Activities (AAA) consists of work with animals meeting specific criteria to provide individuals with opportunities for recreational, emotional, motivational, or social benefits (Delta Society, 2005). Animal-assisted activities are helpful to individuals in many nursing and healthcare facilities, including primary, secondary, rehabilitation, and correctional settings. The benefits of animal-assisted activities are consistent with the values of caring, communication, and comfort of nursing practice (Barba, 1995).

Nurses utilize animal-assisted activities, including equine-therapies, in their care of patients (Bates, 2002; Meinersmann, Bradberry, & Roberts, 2008; Vidrine, Owen-Smith, & Faulkner, 2002). Florence Nightingale, in 1860, observed that “a small pet is often an excellent companion for the sick, for long chronic cases especially” (Nightingale, 1859/1969, p. 103). She encouraged patients to visit her pet owl as she recognized the healing aspects of the interaction.

Therapy Work with Horses

Animal-assisted activities in this country have mostly involved companion animals such as dogs, cats, fish, rabbits, and birds (Sprague, 1999). Although horses have only recently been introduced into organized animal-assisted therapy programs in this country (McDaniel, 1998), they have been used in some form therapeutically for centuries. The early Greeks, for example, gave horseback rides to raise the spirits of

persons who were incurably ill (Brudvig, 1988). Literature from the 17th century contains references to the prescription of horseback riding for gout, neurological disorders, and low morale (Willis, 1997). The saying that, "the outside of a horse is the best thing for the inside of man" (Author uncertain), dates back many years. Over fifty years ago Liz Hartel, a young woman with a severe walking impediment from poliomyelitis, astounded the world by winning a silver medal in the equestrian competition at the 1952 Olympic Games in Helsinki, Finland. Her success gave momentum to the use of horses for both medical and psychological rehabilitation. Working with horses has been reported to result in physical, psychological, social, and educational benefits (Fitzpatrick, 1998).

Several types of therapeutic activities involve horses. Hippotherapy, a term derived from the Latin word hippos, meaning horse, is horseback riding as a form of treatment. Hippotherapy uses the horse's rhythmic movements to influence the rider's balance, posture, and mobility. Therapeutic riding centers using hippotherapy were first established in the United States in the 1960's and have been effective in the treatment of many physical and cognitive disabilities (McDaniel, 1998).

More recently, therapeutic riding has been used to treat those with mental health and learning problems. Adults and adolescents who have drug and alcohol problems, eating disorders, family problems, sexual and physical abuse history, or learning problems have been involved in therapeutic riding. Therapeutic riding programs receive referrals from psychiatric hospitals, foster homes, local schools, juvenile justice systems, and juvenile detention programs. This form of therapy is called equine-assisted psychotherapy or equine-facilitated mental health (Equine-Assisted Growth and Learning Association (EAGALA), 2003; Equine-Facilitated Mental Health Association (EFMHA),

2002). The programs include riding horses, caring for horses, and experiential exercises. Psychotherapies that involve work with horses are believed to help individuals learn about themselves through the horse. The founders of equine-assisted psychotherapy believe that this type of therapy improves coping skills, increases communication skills, assists with anger management, aids in conflict resolution, teaches responsibility, and increases self-confidence and self-esteem (Kerston & Thomas, 1997). Mental health nurses are using equine-assisted psychotherapy in many areas of practice (Bates, 2002; Meinersmann, Bradberry, & Roberts, 2008; Vidrine, Owen-Smith, & Faulkner, 2002).

Problem

Little Research or Understanding of the Human-Horse Bond

Therapeutic riding practitioners who provide services to individuals with physical disabilities have recognized the psychosocial benefits of working with horses. Therapists are now incorporating horses as a therapeutic component in their mental health practices. Anecdotal evidence and case studies suggest a myriad of benefits from these therapies, but there is limited systematic research and empirical evidence to support their effectiveness (Bates, 2002; Masini, 2010). In addition, the theoretical foundation of these therapies have not been established. More knowledge is needed about human-animal relationships so that therapy programs can have a theoretical framework and basis for practice. Practitioners and researchers of equine-assisted therapy are only just starting to organize the body of knowledge, definitions, and philosophy of this field of practice (McDaniel, 1998). One impediment to research in this area is the lack of understanding of the essence of the relationship between humans and horses.

While there is a growing body of research about the value of the relationships between humans and companion animals, such as cats and dogs, there is very little research about the value of the relationships between humans and horses. Because the value of working with horses in the therapy programs is thought to be based on the human-horse relationship (All, Loving, & Crane, 1999), an understanding of this relationship is essential for further research on the processes and outcomes of equine-assisted therapies. Once the essence of this relationship can be identified and explained, equine therapies can be more effectively implemented and evaluated for their therapeutic value.

Mental Health Concerns of Adolescents

While equine-assisted therapies are purported to be of value for individuals of all ages, adolescent girls may derive specific benefits due to their apparent natural affinity to horses as well as their vulnerability to many stressors. The mental health needs of adolescents are a high priority in this country, as indicated by *Healthy People 2020* and the *New Freedom Commission Report* (2003). The search for effective therapies for at-risk adolescents has intensified particularly due to the incidents of school shootings and increases in adolescent suicide rates (Stein, Jaycox, Kataoka, Rhodes, & Vestal, 2003). Suicide is the third leading cause of death among persons 15 to 24 years of age, with adolescent girls having more suicide attempts than adolescent boys (National Adolescent Health Information Center, 2004; Centers for Disease Control and Prevention (CDC), 2009). Overall, school age girls report feeling more sad and hopeless than school age boys (CDC, 2009). Adolescents who are most vulnerable are those who have inadequate coping skills (Adelman, Taylor, Bradley & Lewis, 1997). Studies show that the

development of girls during adolescence is different than the development of adolescent boys, with adolescent girls more frequently experiencing crisis and periods of disconnection (Brown & Gilligan, 1992). Many of the programs that are effective with horses to help individuals with psychosocial concerns treat adolescent girls who are involved in the court systems or seeking treatment for eating disorders, sexual or physical abuse issues, or drug or alcohol rehabilitation (Bates, 2002).

The Study

The purpose of this research was to describe the essence of the relationship between adolescent girls and horses in order to obtain a greater understanding of the potential benefits of utilizing equine-assisted therapies with adolescent girls. This interpretive phenomenological study examined the nature of the adolescent girl-equine relationship from the perspective of the adolescent girls who were involved with horses either recreationally or therapeutically. Such information may aid in planning equine-assisted therapy programs and guide future studies designed to determine the effectiveness of equine-assisted activities. The research question that this study addressed was, “What is the essence of the relationship between adolescent girls and horses?”

A qualitative approach was used for this study as human-animal relationships have not been adequately described, explained, or understood. A variety of theories, including attachment, exchange, role, lifespan development, ecologic and family systems have been used to explore these relationships (Melson, Schwarz, & Beck, 1997). Disciplines such as nursing, ethology, sociology, anthropology, and psychology, have addressed human-animal bonding. However, complex interspecies relationships involving the horse have not been studied extensively from the perspective of humans

who experience them (Barba, 1991). An interpretive qualitative approach, based on Heideggerian philosophy, was used to uncover the essence of these relationships. When using this approach, the researcher seeks to hear and understand the voice of the participants themselves in order to describe their lived experiences (Benner, 1994). By describing and comparing the experiences of girls who engage with horses in recreational and therapeutic settings, an in-depth description of the essence of girl-horse relationships was obtained. Such a description can be used to refine existing equine-assisted therapy programs as well as inform the development of new programs.

CHAPTER II: LITERATURE REVIEW

Because this study focuses on the relationship between adolescent girls and their horses, literature on theories of human-animal relationships, and research on human-animal relationships are reviewed. In addition, because the findings are anticipated to inform the development or refinement of equine-assisted therapies, research on this modality is presented. Finally, because the population of this study is adolescent girls, especially those whose mental health concerns might render them candidates for equine-assisted therapy, a general discussion of the developmental issues and mental health concerns of adolescent girls is presented.

Theories of Human-Animal Relationships

The human-animal relationship is complex and multifaceted. Consequently, several theories have been proposed to explain the nature of human-animal relationships. Theoretical models of attachment theory and social support, both derived from theories of human-human relationships, are examined first. A review of the biophilia hypothesis, which specifically addresses the nature of human-animal relationships, follows.

Attachment Theory

Because many people express feeling close, loving, and attached to their companion animals researchers of human-animal relationships sometimes ground their work in attachment theory (Hanselman, 2001; Kurdek, 2009; Melson, 2002; Triebenbacher, 1998; Walsh, 2009a). Bowlby (1988) defined attachment as "any form of behavior that results in a person attaining or maintaining proximity to some other clearly identified individual who is conceived of as better able to cope with the world. It is most obvious whenever the person is frightened, fatigued or sick, and is assuaged by comforting and care giving" (p. 26-27). A key feature of attachment theory is that the presence of the attachment figure, typically the mother, enhances security (Bowlby, 1969). According to Bowlby, one of the important features of attachment is the asymmetry of the relationship—typically it is the mother or parent having language and cognitive skills that the infant does not (1969). The attachment is focused on the psychological benefits to the less cognitively developed individual (the child) who is attached to the parent.

Another conception of attachment includes a symmetrical relationship: that of adult-adult (Ainsworth, 1989). This bond is described as a long-enduring tie in which each partner is important as a unique individual. The tie is maintained during absences, and there is a desire and pleasure in coming together. Separation causes distress and loss will cause grief. An important criterion of an attachment associated with a symmetrical relationship is the feeling of increased security in the presence of the partner.

Attachment to a companion animal has been found to contribute to physical and emotional health. Using attachment theory to guide a quantitative study, Hanselman

(2001) assessed the effectiveness of having dogs in an adolescent anger management group versus an anger management group without dogs present. Data were collected before, during, and after the groups. Hanselman found that when the dogs were present the participants had increased feelings of happiness, security, and self worth and reduced feelings of loneliness, isolation, and stress.

Companion animals are included among significant attachment figures that promote mental health and offer unconditional love. McNicholas and Collis (2000) point out from the literature that some dog owners, when emotionally stressed, rely on their companion animals as they would to a human attachment figure. This is partly because their companion animal is always available to meet their needs. It is also easier for some people to bond with animals than people because animals are not concerned about material things, wealth, status, and social skills. Additionally, Kurdek (2009) found in a survey of 975 adult dog owners that most people in the sample reported they would choose the company of dogs over relatives and friends when they were emotionally distressed.

Children and Attachment Theory

The conception of an attachment object, in attachment theory, has expanded from focusing on only the mother figure to include fathers, siblings, grandparents and other close relationships. Researchers examining the human-animal bond have suggested that companion animals can also function as attachment objects for children (Melson, 2000). Animals can provide unconditional love and acceptance for children, promoting a sense of comfort, relaxation and security. The human-animal relationship can foster a child's sense of self-worth (Melson, 1998; Triebenbacher, 1998). A secure attachment in

childhood is predictive of later adjustment, resilience and coping (Fine, 2000). Human-animal researchers utilize attachment theory to suggest that a pet can provide a secure base for children (Harbolt & Ward, 2001; Kale, 1992; Mallon, 1992; Melson, 2003).

Research on the roles of companion animals on children's development indicates that children develop strong attachments to their companion animals. Barba (1995) suggested that the relationships that humans have with their companion animals often parallels that of the human-human relationship, particularly the mother-child relationship. The pet must rely on the human just as the child must rely on the parent.

Based on a review of the literature, Strand (2004) proposed that children who have companion animals in their home turn to them when they are stressed and need comfort. The companion animals appeared to provide the children with an outlet for their emotions and help them regulate their reactions to stressors. Strand suggested that companion animals give the child something to rely on for emotional support in time of stress, emotional turmoil or conflict. The constant nurturing and acceptance provided by the companion animals appears to help the child develop healthy coping skills. In a comparative study, children in single-parent families were compared with those in two-parent families with regard to their level of attachment to their family dog. They found that children in single-parent homes were significantly more attached to their dogs than children in two-parent family homes suggesting that the dog serves as an attachment figure for the children (Bodsworth & Coleman, 2001).

Attachment theory has been examined as it relates to the role of companion animals as transitional objects in children's emotional development (Katcher, 2000; Levinson, 1970; Reichert, 1998; Triebenbacher, 1998). Transitional objects include

blankets and toys to which children develop strong attachments. Transitional objects function as supplemental attachment figures and are helpful to children when they are tired, ill or stressed. Animals are able to help alleviate stress by providing comfort (Fine, 2010). Triebenbacher (1998) examined the role of companion animals as transitional objects for children. The sample consisted of 174 children between the ages of 3 and 11. The companion animals in this study were dogs, cats, and other animals (birds, reptiles, rodents, horses, and fish). The results indicated that children perceived their companion animals as special friends, important family members, and providers of social interaction, affection, and emotional support. The findings also suggested that companion animals served similar functions as inanimate transitional objects.

Melson (1991) found an association between parents' perceived competence of their children and pet attachment, self-reported empathy and pet attachment, and attachment and parent's perceived empathy in their children. Daly and Morton (2006), in a survey of 155 children, found that school-aged children who are highly attached to their companion animals are more empathetic than those who are less attached to their companion animals. Vidovic, Stetic, and Bratko, (1999) also found a positive relationship between pet attachment and empathy, as well as a positive relationship between pet attachment and increased social skills, and positive family interactions.

Questions have been raised about the applicability of attachment theory to the study of humans-animal relationships. The term "attachment" is often loosely applied to any type of close relationship. Crawford, Worsham, and Swinehart (2006), in a review of research reports on companion animal studies and attachment, found in the 41 articles reviewed, that 16 included measurements of attachment and only seven of those used

standard measures of attachment related to attachment theory. Crawford et al. point out that, the term *attachment* in most human-animal studies shares some characteristics of the term as it is used in attachment theory, but they are not fully aligned, conceptually.

The asymmetry that is referred to in attachment theory is also present in the human-companion animal relationship. However, Collis and McNicholas (1998) point out that the application of Bowlby's asymmetrical attachment to human-animal relationships may not be appropriate since the humans who have the advanced cognitive skills benefit psychologically from the less cognitively developed animal. This is the opposite of that relationship in attachment theory, where the less developed individual benefits psychologically from the individual with the more advanced cognitive skills.

Perceived security is particularly important in most human-animal relationships (Collis & McNicholas, 1998). Nevertheless, some humans and animals develop relationships for reasons other than security, such as utilitarian relationships for food, protection or assistance. Some examples of these are a farmer and his relationships with his cows, a shopkeeper with his guard dog, or a blind person with his seeing-eye dog.

Nevertheless, attachment theory is conceptually helpful in constructing an understanding of the potential benefits of working with animals in a therapeutic modality. The loving bond that is formed between humans and animals has been explored in research with the implications that these attachments offer helpful benefits. Research on the human-companion animal bond and attachment offers foundational work for exploring the phenomenon of the relationships that adolescent girls have with horses.

Social Support Theory

Cobb (1976), in his seminal work, defined social support as resources leading an individual to believe that he or she is cared for, loved, and esteemed. Social support increases a sense of belonging and a feeling of being nurtured. Informational, material, or emotional resources can be sources of social support. Supportive interactions are protective against the health consequences of life's stress. Social support can protect people in crisis from a wide variety of pathological states such as depression, alcoholism, and social isolation. Lynch (1977, 2000) described the health benefits of human-human social companionship. Loneliness and lack of social support are linked to increased risk of heart disease and premature death. Human social companionship, such as being married, being involved in community activities, or having friendly neighbors, can lead to positive health benefits. Most people seek out social support to help them deal with stressful situations. Social support is necessary for healthy functioning and mental wellness (Lynch).

Social supports are typically referred to as people providing support for other people. When people experience a lack of social support or interaction in their lives, they develop a potential risk for physical and psychological problems (Collis & McNicholas, 1998). Following a review of the literature, Fine (2010) pointed out, that companion animals can provide social support and act as facilitators of interactions between people. Companion animals also provide a sense of continuity for their owners. Companion animals are non-judgmental beings that offer unconditional love. People often turn to their companion animals for support and reassurance in times of trouble or when feeling stress. Collis and McNicholas suggest that it may be helpful to examine the psychological

and physical health benefits of the human-animal relationship from the framework of social support.

Companion animals can provide a source of social support and have a positive impact on people's physical and mental health (Beck & Katcher, 2003; Wells, 2009). The positive effect of dogs on people is consistent with the literature on the benefits of human social support (Garrity & Stallones, 1998). Companion animals meet many of the needs described by Cobb's social support theory. The absence of the social support of a companion can lead to loneliness, depression, emotional stress and stress on the immune system. These conditions can predispose individuals to some disease states. Companion animals can provide buffering effects on stress and anxiety and possibly reduce the likelihood or severity of certain diseases (Serpell, 1996). Additionally, companion animals may act as a social support to individuals coping with a chronic illness. Johnson, Meadows, Haubner, and Sevedge (2008), in a qualitative study, found that cancer patients who had dogs visit them while receiving chemotherapy reported that the animals helped them feel less anxious and provided a good distraction from their treatments.

Companion animals are perceived by many as being nonjudgmental and always present when needed (Wells, 2009). People often become deeply attached to their companion animals, viewing them as an integral part of the family. The importance of companion animals in people's lives, and the social support that people gain from animals is demonstrated by the many people who say that their companion animal is a member of their family and by those who talk to their companion animals (Katcher, 1981). In a comparative study, many dog owners were found to be as emotionally close

to their dogs as to the closest family member (Barker & Barker, 1988). Cats also provided their owners with a source of emotional support (Stammbach & Turner, 1999).

Companion animals can provide social support to humans by acting as social catalysts enhancing person-to-person contact. People walking their dogs are more likely to interact with other people (Cangelosi & Sorrell, 2010; McNicholas & Collis, 2000; Messent, 1983; Wells, 2009). People tend to talk to their dogs while walking with them, and even talk to others that they meet on walks when their dogs are not present (Rogers, Hart, & Bolts, 1993). Pet owners often speak to their animals, making them great conversational partners (Rogers, et al.). Even a rabbit or a turtle can stimulate people to socialize with other people by motivating them to talk about their animals (Hunt, Hart, & Gomulkiewicz, 1992).

Strand (2004) found, in reviewing literature, that companion animals may provide social support to children during difficult transitions and stressful periods in their lives, such as the divorce of parents, the death of a loved one, relocation, and other difficult life adjustments. A close relationship with companion animals can soften the stress of intra-parental conflicts at home. Children can seek support, comfort, and refuge with their animal during parental arguments. They often share private feelings and secrets with companion animals during happy and exciting times in their lives and turn to their companion animals in emotionally sad and distressing times. Children believe that companion animals are good listeners and are able to keep secrets. They feel comfortable sharing their emotions with companion animals, viewing the companion animals as being able to handle full disclosure of their thoughts and feelings while remaining uncritical and accepting of them. Other researchers found that children who were significantly

involved with their companion animals showed more empathy and are more skilled at predicting the feelings of others (Daly & Morton, 2006; Melson, 2002).

Biophilia

The term *biophilia* was coined by Edward O. Wilson (1984), a Harvard biologist. Biophilia is the “innate tendency to focus on life and life processes” (Kellert & Wilson, 1993, p. 20). Biophilia claims that humans have a biologically-based attraction to nature and all of its life forms. Kellert and Wilson (1993) describe the biophilia hypothesis as a “human dependence on nature that extends far beyond the simple issues of material and physical sustenance to encompass, as well, the human craving for aesthetic, intellectual, cognitive and even spiritual meaning and satisfaction” (p. 201). Humans not only love or hold positive regard for animals, but also have an intrinsic interest in them (Wilson, 1984). The biophilia hypothesis suggests that our identity and personal fulfillment as human beings is dependent on our relationship to nature. The natural world influences our emotional, cognitive, aesthetic, and spiritual development. The biophilia hypothesis proposes that the human search for a fulfilling existence is intimately dependant on our relationship to nature. Support for the biophilia hypotheses, in 1993, was that more people in this country attend zoos annually than attend all sport attractions combined (Kellert & Wilson). Another example is the human tendency to prefer to look at greenery, water, or flowers rather than structures of glass or concrete (Kellert & Wilson, 1993).

Beck and Katcher (2003) suggest that social support theory and the biophilia hypothesis can be used together in a complementary manner to fully capture an understanding of human-animal relationships. The researchers note that the two theories complement one another in encompassing the complex human-animal connection. The

social aspects of the human-animal relationship would be difficult to study alone and separate from the biological aspects of the biophilia hypothesis. The reverse is also true.

Summary

Different theories have been used to guide the study of human-animal relationships. The theories vary but offer different aspects with which to understand this complex relationship. Attachment Theory addresses the emotional supportive aspects of the human-animal relationships where Social Support Theory attends to the social supportive aspects. Biophilia, on the other hand, attends to the biological intrinsic need for humans to connect with animals. Theories related to human-animal relationships are conceptually helpful in developing an understanding of the therapeutic benefits of incorporating animals into treatment. Understanding these theories helped guide this exploration of the relationship that adolescent girls have with horses.

Research on Human-Animal Relationships

The human-animal relationship is fluid and changes according to human needs. The human-animal relationship can provide companionship, protection, recreation, sport, social interaction, service and nurturance. Researchers have reported many beneficial aspects of relationships between humans and companion animals. Several of the findings addressed are from older studies, but because they are foundational to understanding the benefits between human and animal relationships, they are briefly mentioned. Studies relating to the human-horse relationship and equine studies are discussed in more depth later in this chapter.

Animals and Physical Health

Several researchers have found that companion animals have positive effects on physical health. Most studies of pet ownership and physical health are non-experimental, with data collected from interviews and surveys of convenience samples (Barker & Wolen, 2008). Physically interacting with animals, such as petting or stroking them decreases blood pressure and heart rate (Grossberg, Alf, & Vormbrock, 1988; Katcher, 1981; Katcher, Friedmann, Beck, & Lynch, 1983; Shiloh, Sorek, & Terkel, 2003). Interaction with a familiar animal has more therapeutic benefit than interaction with an unfamiliar animal (Astrup, Gantt, & Stephens, 1979; Baun, Bergstrom, Langston, & Thoma, 1984; Schuelke, Trask, Wallace, Baun, Bergstrom, & McCabe, 1992).

Friedmann, Katcher, Lynch, and Thomas (1980) found that pet owners had a decreased mortality rate one year after discharge from a coronary care unit. This study, having some inconsistent findings, was later repeated. The second longitudinal study (Friedmann & Thomas, 1995) of 369 patients with cardiac problems confirmed the original findings that pet ownership predicted the survival rate one year after a myocardial infarction. This landmark research by these researchers inspired further research into the possible health benefits of pet ownership.

In a longitudinal study, Siegel (1990) reported findings from interviews of Medicare enrollees that revealed that people who owned companion animals had fewer doctor visits over a one-year time frame compared to non-pet owners. Individuals report fewer physical problems such as headaches, colds, hay fever, and dizziness one month after getting a pet (Serpell, 1991). Health screenings of 5,741 people were examined to assess the relationship between the cardiovascular health of those who owned a pet

compared to those who did not own a pet (Anderson, Reid, & Jennings, 1992). People who owned a pet were found to have reduced individual risk factors for developing coronary heart disease, such as decreased blood pressure, compared to non-pet owners. This was found to be particularly more likely in males. Pet owners, as a whole, are healthier than non-pet owners. In a survey of 1,011 people, Headey (1999) found that people who owned dogs and cats were healthier than non-pet owners in that they went to the doctor less often and used less medication than non-pet owners.

When individuals are exposed to stressors, the presence of an animal alone can reduce heart rate and blood pressure. In an experimental study, women dog lovers were randomly assigned to complete a mental task accompanied by either their pet dog or by a close friend (Allen, Blascovich, Tomaka, & Kelsey, 1991). The presence of the dog produced little stress reactivity in skin conductance, blood pressure, and heart rate yet having the close friend present increased overall stress reactivity. Allen, Blascovich, and Mendes (2002) compared the stress levels in married couples with and without companion animals. The findings indicated that married couples with a pet had lower resting blood pressure and heart rate while attending to a mentally stressful task when compared to the married couples without a pet.

The presence of a pet can moderate stress. In a randomized controlled trial, adults with hypertension were randomly assigned to either acquiring a dog or a cat or to a wait-list control group (Allen, Blascovich, & Mendes, 2002). When exposed to a stress-related activity at home, the physiological stress response was lower in those assigned a pet compared to the subjects in the control group without a pet. Walking a dog in a park was also found to be a stress reliever. In longitudinal study, seniors walking in the park with a

dog were compared to seniors walking alone (Motooka, Koike, Yokoyama, & Kennedy, 2006). The findings demonstrated that the presence of the dog in the park, as well as at home, increased parasympathetic neural activity associated with stress reduction.

Companion animals have been reported to be helpful in promoting exercise, which contributes to good health in their owners. In an observational study, dog owners walked more often than non-dog owners (Rogers, Hart, Boltz, 1993). After adopting a dog, people increased the amount of their daily walking (Serpell, 1991). People who walked their dogs regularly were reported to have a more rapid walking speed than non-dog walkers. It was also found that pet owners maintained their rapid walking speed whether or not their dog was present (Thorpe et al., 2006). In a one-year longitudinal study of 995 people, companion animal owners were found to be more physically active than those without companion animals (Raina, Toews, Waltner-Bonnett, Woodward, & Abernathy, 1999). Those without pets were also noted to engage in comparatively fewer activities of daily living.

In the elderly population, companion animals offer physical and psychological benefits. Having a companion animal helps the elderly engage in healthier behaviors such as exercising and maintaining a healthier diet (Dembicki & Anderson, 1996). Researchers have found that elderly people who own companion animals have less health deterioration over a one-year period than non-pet owners. They also visited doctors less often and took fewer medications if they had a companion animal (Headey, 1999; Raina, et al. 1999; Siegel, 1990).

Animals and Psychological Health

Several researchers have reported psychological benefits of companion animal ownership. Most of these studies are non-experimental, with data collected from interviews and surveys of convenience samples (Barker & Wholen, 2008). Companion animals can buffer the effects of stressful life events and lower levels of anxiety, loneliness, and depression (Folse, Minder, Aycock, & Santana, 1994, Garrity, Stallones, Marx, & Johnson, 1989; Headey, Grabka, Kelley, Reddy, & Tseng, 2002). Companion animals have also been found to enhance feelings of autonomy, competence, and self-esteem (Beck & Katcher, 1984; Kidd & Kidd, 1985; Levinson, 1997; Triebenbacher, 1998).

Companion animals provide emotional support (Cohen, 2002) as well as social support (Peretti, 1990; Serpell, 1991). A companion animal can serve as a friend, and has been found to promote an increase in sense of competence and self worth (McNicholas & Collis, 2001). Companion animals provide individuals an opportunity to experience nurturance, love, and shared pleasure in both recreational activities as well as relaxation (McNicholas & Collis, 2001). For the ill, companion animals can provide emotional support as well as a distraction from their physical distress (Enders-Slegers, 2000).

Dogs have been noted for their ability to be a strong social catalyst. When walking a dog, people have more conversations with strangers than when walking alone (McNicholas & Collis, 2000; Messent 1983; Wells, 2009). This interaction with strangers can vary according to the characteristics of the animal. Animals with more infantile features and more unique appearance have a greater impact on the initial interaction (Fine & Eisen, 2008). Dogs who are younger, have more endearing features, or have a

reputation for having a sweet temperament also draw more social interaction (Wells, 2009).

In several survey studies researchers have found that companion animals can reduce loneliness. Some studies have addressed pet ownership and loneliness in the general population, but most of the researchers have focused on populations in nursing homes and hospital settings (Wells, 2009). Having a companion animal offers the elderly a reliable and accessible partner. Most elderly dog owners reported in one study that their dog was their only friend and that their relationship with their dog was as strong as their relationships with humans (Peretti, 1990). In a survey of 121 women, it was found that single women with companion animals were less lonely than non-pet owners (Zasloff & Kidd, 1994). These findings were supported in a later study of 10,000 people when researchers found that the close relationship of individuals to their companion animals decreased their level of loneliness (Headey, Grabka, Kelley, Reddy, & Tseng, 2002).

The association of pet ownership with mood in people living alone has also been explored in several studies. Unmarried female pet owners reported fewer depressive symptoms than unmarried women without pets (Tower & Nokota, 2006). An observational study found that cats help lessen the depressive moods of single adults (Rieger, & Turner, 1999). Companion animals also seem to facilitate the grief process. Elderly people who were grieving the loss of their spouses and had a companion animal were less likely to describe themselves as depressed compared to those without companion animals (Garrity, Stallones, Marx, Johnson, 1989). When compared to human relationships, cats have been found to alleviate negative moods equally as well as human partners (Turner, Rieger, Gygax, 2003). Researchers have also found that companion

animal owners, in general, experience less stress (Kidd & Kidd, 1999), depression, have improved morale (Jessen, Cardiello, & Baun, 1996), less anxiety (Fritz, Farber, Kass, & Hart, 1995), and loneliness (Headey, 1999), compared with non-companion animal owners.

Most of the focus of the health benefits of animals is based on dogs and cats. Other types of animals, such as fish and birds, also have beneficial affects. Fish in aquariums have been recognized to promote relaxing effects on people. Individuals who engaged in a stressful activity had lower blood pressure if they watched fish swim in a fish tank compared to looking at plants or a blank wall (Katcher et al., 1983). Watching aquarium fish or caged birds for 40 minutes lowered blood pressure and heart rate resulting in effects comparable to hypnosis (Katcher, Segal, & Beck, 1984). Fish also tend to produce calming effects in the dental office (Katcher et al., 1984) and in the hospital setting. Aquariums, when placed in hospital rooms reduce stress levels of adult patients waiting for heart transplants (Cole & Gawlinski, 2000). Patients with Alzheimer's disease become less agitated with the presence of a fish tank in the room. The patients tend to eat better, gain weight and have fewer disruptive behaviors after having a fish tank put into the dining room (Edwards & Beck, 2002). Several comparison studies have found that a bird's presence can be beneficial. Birds in residential homes have facilitated psychological health. Elderly people in a skilled rehabilitation facility who were given a parakeet for 10 days showed decreased depression (Jessen et al., 1996). Depressed elderly men exposed to an aviary had greater reduction in depression than those who did interact with the aviary and also were found to interact more with family and staff (Holcomb, Jendro, Weber, & Nahan, 1997). Having a companion canary was

found to improve a range of psychiatric symptoms and perceived quality of life when compared to having a plant (Colombo, Dello Buono, Smania, Raviola, & De Leo, 2006).

Animals and Children

The American Academy of Child and Adolescent Psychiatry (AACAP, 2008) reports benefits for children who own companion animals. According to the AACAP, children's positive feelings about companion animals can contribute to increased self-esteem and self-confidence. Caring for a pet can help provide a child with a sense of responsibility. Pet ownership can facilitate a child's connection to nature and teach them to respect living things. Some physical benefits of pet ownership for a child are increased physical activity, comfort, and affection.

The positive effects of companion animals on children are well documented (Barker & Wolen, 2008). Having a companion animal increases autonomy, self-concept and self-esteem in elementary school children (Van Houtte & Jarvis, 1995). Researchers have also reported that companion animals have some physical effects on children. Having a dog present was found to help reduce children's blood pressure while reading aloud (Friedmann, Katcher, Thomas, Lynch, & Messent, 1983). Animals also stimulate conversations by their presence and unscripted behavior, as well as by being a neutral subject for the children to focus on (Fine, 2000). Dogs help children who have trouble verbalizing due to feeling withdrawn or refusal to speak. Walking with dogs helps children express themselves and speak in a louder tone. As children become more comfortable with animals and begin to enjoy their walks, their comfort and confidence seem to increase (Fine, 2000).

Other literature reporting the positive effects of the relationship between children and animals has been described in the section on attachment theory. Those studies found that children with companion animals have greater empathy, increased social orientation, and a positive family climate (Bodsworth & Coleman, 2001; Daly & Morton, 2006; Hanselman, 2001; Kurdek, 2009; Melson, 2000; Triebenbacher, 1998; Vidovic et al., 1999).

Summary

There is a substantial body of research that indicates that interaction with animals is both physically and psychological beneficial to humans. Wells (2009), in a comprehensive review of the literature, assimilated the key findings from studies of human-animal relationships. The review included studies that used a wide range of methodologies including surveys, interviews, experimentation, and case studies. Many studies (number not reported) were reviewed and were supportive of the benefits of the relationships between humans and companion animals in regards to physical and emotional health.

Another comprehensive review of the literature, including 129 studies of human-companion animal interactions, was completed by Barker and Wolen (2008). This review examined research that was published since 1980 on the benefits of pet ownership as well as research on the benefits of interactions with a companion animal that is not owned by the subject. In comparison to the earliest review of research, by Beck and Katcher (1984), on the benefits of the human-companion animal interaction, Barker and Wolen found that there was considerable progress in the development of the science. Not only were more studies completed, but the designs were more rigorous.

Animal-Assisted Activities and Therapy

Boris Levinson (1962), a psychiatrist, was one of the earliest practitioners to recognize the therapeutic value of working with animals. He is considered by many as the father of animal-assisted therapy. Levinson's (1997) writings about companion animals and human development guided the emergence of the field of animal-assisted therapy.

There are two primary modalities that involve interventions with animals—animal-assisted activity (AAA) and animal-assisted therapy (AAT). The Delta Society is a national organization that focuses on the improvement of human health through service and therapy animals. It defines AAAs as, “opportunities for motivational, educational, recreational, and/or therapeutic benefits to enhance quality of life. AAA are delivered in a variety of environments by specially trained professionals, paraprofessionals, and/or volunteers, in association with animals that meet specific criteria.” AAT, on the other hand, is defined by the Delta society as, “a goal-directed intervention in which an animal that meets specific criteria is an integral part of the treatment process. AAT is directed and/or delivered by a health/human service professional with specialized expertise, and within the scope of practice of his/her profession. Key features include specified goals and objectives for each individual and measured progress” (2005). Published studies do not consistently differentiate between AAA and AAT (Barker & Wolen, 2008). For the purposes of this review, the term animal-assisted therapy (AAT) will be used to minimize confusion.

Pet visitation programs often use companion animals such as dogs, cats, rabbits and Vietnamese pot-bellied pigs since these animals can be easily transported to facilities. Some other types of animals are used as well. Rabbits, guinea pigs, hamster,

mice and rats offer a visual and tactile experience that may have a therapeutic effect, but they are also unpredictable and fragile (Fine, 2010). More exotic species such as elephants, dolphins, and lizards have also been used (Fine, 2010). Interacting with dolphins can relive depression (Antonioli & Reveley, 2005). This type of therapy may be expensive, however, the claim is that the setting, being in the water with a large intelligent animal, and the symbolism cannot be duplicated by other therapy (Antonioli & Reveley).

Working with horses therapeutically has taken on two main foci: physical therapy and mental health therapy. Equine-assisted therapy for mental health purposes is the focus of this study and will be addressed later in this chapter. Hippotherapy is the term to describe the equine therapy aimed at improving physical health. It is implemented by an occupational, physical or speech therapist that is trained to use the movement of the horse to help improve a person's health. Therapists use techniques such as neurodevelopmental treatment and sensory integration along with the movement of the horse as part of their treatment. The goals of hippotherapy are to improve balance, posture, fine motor control, articulation, and increase cognitive skills (Fine, 2010). Children with cerebral palsy who engaged in horseback riding found riding to induce normalized pelvic movement, resembling normal ambulation, improve joint stability, weight shift management, and dynamic postural stabilization (Sterba, 2007).

Animal-Assisted Therapy Research

Researchers have found that interventions with animals result in positive physical and psychosocial benefits (Barker, Rogers, Truner, Karpf, & Suthers-McCabe, 2003). Many researchers, including nurses, have conducted studies examining the benefits of

animal-assisted interactions. Most animal-assisted interaction work has been done with dogs and cats, and has addressed a varied population.

Adults and Animal-Assisted Therapy

Researchers have found that animal-assisted therapies were associated with decreased feelings of anxiety, anger, depression, loneliness, and stress in adults (Barker & Dawson, 1998; Barker, Knisely, McCain, Schubert, & Pandurangi, 2010; Friedmann, 2000; Rossetti & King, 2010). Several experimental studies have demonstrated positive effects of interventions with AAT in mental health settings. Dogs reduced anxiety and fear in hospitalized psychiatric patients (Barker, Pandurangi, & Best, 2003; Barker & Dawson, 1998), and promoted pro-social behavior (Marr et al., 2000). Other researchers examined the benefits of AAT in patients diagnosed with schizophrenia. Some of the benefits noted were an increased use of leisure time (Nathans-Barel, Feldman, Berger, Modai, & Silver, 2005), more involvement in domestic and health activities (Kovacs, Kis, Rozsa & Rozsa, 2004), better communication (Kovacs, Bulcuz, & Simon, 2006), and improved social functioning (Barak, Savorai, Mavashev, & Beni, 2001). When a therapy dog is present in a mental health facility, patients tend to have fewer loud spontaneous vocalizations and aggressive verbal outbursts, which results in a lower intensity of noise (Walsh, Mertin, Verlander, & Pollard, 1995). AAT can also be helpful for individuals struggling with substance abuse by improving the quality of the relationship with the human therapist and, as a result, improving treatment outcomes (Wesley, Minatrea, & Watson, 2009).

The benefits of including therapy dogs and other animals in outpatient counseling sessions are beginning to be examined. Schneider and Harley (2006) found that college

students rated counselors who had a dog present in their therapy session more favorably in comparison to counselors who did not have a dog present. Kruger, Trachtenberg, and Serpell, (2004) point out that animals may facilitate conversation between the therapist and the client. A therapist who conducts therapy with an animal present may seem less threatening and the client may be more willing to talk about himself. The therapist may appear more endearing when an animal is present. In counseling sessions, children often looked forward to seeing and interacting with therapy animals. Dogs walk over to children in a warm and welcoming manner and serve to reduce the initial tension.

Geriatrics and Animal-Assisted Therapy

Most studies examining animal-assisted therapies have targeted the geriatric population (Brodie & Biely, 1999). Since the 1980's companion animals have been taken into nursing homes for pet-therapy. Animals offer an opportunity for increased conversations, interactions, and socialization for residents in long term-facilities which in turn can decrease loneliness (Bernstein, Friedmann, & Malaspina, 2000; Johnson & Meadows, 2002; Lapp, 1991; Laun, 2003).

In nursing homes, researchers observed that residents were happier, more alert, and more responsive when a dog was present. Individuals in nursing homes also engaged in more frequent and longer conversations with each other when visited by dogs and cats from animal shelters (Bernstein, Friedmann, & Malaspina, 2000). Banks and Banks (2002) assessed the loneliness of nursing home residents who were randomly assigned to AAT or a craft activity. They found that residents in the AAT group had less loneliness. In a follow-up study, use of AAT with an individual alone versus in a group format was compared (Banks & Banks, 2005). The findings showed that providing AAT on an

individual basis reduced loneliness whereas there was no benefit for those residents who received AAT in the group format. This is helpful information that supports the individual work that most AAT therapy involves.

Geriatric patients with cognitive impairment have shown improvements with AAT in several studies. In patients with cognitive impairment, AAT helped reduced agitation and increased socialization (Richeson, 2003), increased social behavior (Batson, McCabe, Baun & Wilson, 1998), reduced the use of physical restraints, increased patients' orientation to time, and facilitated goal achievements (Katsinas, 2000). AAT with dogs and cats decreases aggressiveness, anxiety, and phobias (Kanamori et al., 2001). A randomized pre-and post-test study compared the effects of visits with animals to that of human visits for the elderly and reported improved mood with the group receiving animal visits as compared to the group having humans visits (Lutwack-Bloom, Wijewickrama, & Smith, 2005). The presence of dogs helped the elderly residents improve their orientation to the days of the week, based upon the presence or absence of a pet therapy dog. Dogs were also helpful for the elderly during walks with the residents. If the resident wandered off, the staff was able to call the dog back and the patient would return with the dog (Katsinas, 2000).

Children and Animal-Assisted Therapy

Most studies of AAT with children have focused on children in clinical settings and have demonstrated that children experience benefits from these interventions (Barker & Wolen, 2008). Hospitalization is a difficult time for children and it can be a major stressful event. In pediatric settings, nurses have described the beneficial effects of animals on hospitalized children's moods. In a study of self-reported and parental ratings

of 70 children's moods, it was reported the children had less desire to leave the hospital and go home after having AAT than before. They also had fewer negative thoughts about therapy (Kaminski, Pellino, & Wish, 2002). In a quasi-experimental study involving 57 children, it was found that exposure to animals helped decrease pain in children (Braun, Stangler, Narveson, & Pettingell, 2009). In another quasi-experimental study, Tsai, Friedmann, and Thomas (2010) examined the effects of AAT on 16 hospitalized children's cardiovascular responses, state anxiety, and medical fear. AAT decreased physiological arousal in hospitalized children resulting in increased coping. At doctors' appointments and pediatric exams, pretest-posttest studies demonstrated that the presence of a friendly dog moderated children's stress responses helping them be more relaxed (Hansen, Messenger, Baun, & Megel, 1999; Nagengast, Baun, Megel, & Liebowitz, 1997).

Animals have been recognized as a motivating factor for children in learning environments. Researchers found that AAT can be helpful to children in school settings by providing a form of social and emotional support (Friesen, 2010). Children with pervasive developmental disorders were able to improve socially and behaviorally with AAT (Martin & Farnum, 2002). Additionally, children who read aloud with a dog present had a decrease in blood pressure suggesting that the dog helped them relax (Friedmann, Katcher, Thomas, Lynch, & Messent, 1983).

AAT has been studied in mental health treatment settings with children. Weston (2010), a mental health counselor, included her dog in therapy sessions with five children. After 15 months, the program was evaluated by semi-structured interviews with the children and their parents. All of the children who were interviewed reported that the

dog made them feel happy, relaxed and calm. The participants also said they would feel sad if the dog was not there. The children reported that having the dog present helped them feel more motivated to return for another therapy session. The parents also reported that their children benefited from the dog's presence and they indicated that it was a positive factor in their child's return for future sessions. In an observational study of 12 autistic children using AAT with a dog, the children had fewer autistic and more socially appropriate behaviors (Redefer, & Goodman, 1989). Using llamas, dogs, and rabbits with 22 autistic children, researchers reported an increased use of language and social interaction with AAT compared to traditional occupational therapy (Sams, Fortney, & Willenbring, 2006). Martin and Farnum (2002) measured social outcomes of 10 children with pervasive developmental disorder who participated in an AAT program with a dog. They found that the children were more aware of their social environment, more focused, and more playful during AAT with a dog. Patients with a variety of developmental and emotional disorders when involved in AAT had more sustained focus (Limond, Bradshaw, & Cormack, 1997). Anderson and Olson (2006) conducted a qualitative study to assess the benefits of AAT using a dog in a classroom with six children with behavior problems. Having a dog present encouraged the children to demonstrate responsibility, empathy, and respect.

Summary

Nimer and Lundahl (2007) completed a meta-analysis on animal-assisted therapy research. It was the first quantitative review of animal-assisted therapy literature. Approximately 250 abstracts were identified with 119 included in the review. From the studies included in the review, dogs were used most often and AAT most often targeted

mental health concerns. AAT was used more with adults than with minors. Many of the quantitative studies found in the literature did not use a control group, but after comparing the studies with a control group with those that did use a control group, no significant difference was found in the outcomes. Based on this finding both types of studies, those with and those without control groups, were analyzed together. The results from this meta-analysis supported the conclusions of previous studies that AAT offers both physical and psychological benefits.

Rossetti and King (2010) reviewed studies that explored the benefits of using AAT for mental health treatment of adults, the elderly, and children with behavioral and autism spectrum disorders. Dogs, cats, horses and dolphins were identified for use in AAT. The decision to use AAT was made by hospital managers and program staff. Some AAT involved animals that were residents in the facilities and some programs used animals that were brought into the facility for visits. Their review of research suggested that AAT improves patients' ability to communicate, socialize, promotes self-esteem, responsibility, and socialization.

This broad range of studies indicates that animal-assisted therapy can reduce anxiety, depression, loneliness, and enhance well-being. Most studies of animal-assisted therapy used dogs and cats. While there is a growing body of evidence supporting the use of animals in therapy programs further research is needed to clarify how animals influence mental health outcomes.

Human-Horse Relationships

Horses have played an important role in the lives of humans for centuries. Horses provide a source of transportation and a means for competition and recreation. Several

researchers have examined gender differences related to the human-horse relationships (Brown, 1984; Jones, 1983; Klopfer, Klopfer, & Etemad, 1984). Brown (1984) sampled 160 animal owners using two methods of data collection, observational measures of pet owners interacting with their animals, and a survey to measure owners' behavior with their animals. Men were less interactive, more punitive, more instrumental, and less affectionate with horses than women. They were also less likely to participate in the equine relationship for companionship or pleasure. Women had more affectionate behavior, interacted more frequently, and enjoyed a more positive relationship with their horses. Kidd, Kelly, and Kidd (1984) in a correlational study matched pets to owners' personality types and also identified gender differences in horse owners. Men horse owners tend to be more aggressive and dominant toward their horses than female horse owners.

There are also gender differences in children's relationships with horses. More girls are interested in horses and horse activities than boys (Jones, 1983; Maurer, Delfour, Wolff, & Adrien, 2010). In a survey of members of two commercial riding stables, female horse owners overwhelmingly outnumbered males. The survey also found that horse owners tend to label horseback riding as a "female" activity (Klopfer, Klopfer, & Etemad, 1984). Girls also greatly outnumbered boys in their desire to own a horse (Daly & Morton, 2006).

The bond between adult women and their horses has been explored in two studies. In an ethnographic study, Brandt (2004) examined the communication between women and horses. Twenty-five women in various barn settings were interviewed and observed over a two-year period. The findings indicated that the women and horses have an ability

to understand and communicate through bodily gestures and together they co-create a system of language all their own. Relationships between women and horses were also examined in a phenomenological study (Yorke, Adams, & Yoady, 2008). Six adult women who experienced a trauma and reported that horses were a significant factor in their recovery were interviewed. The relationships that participants developed with their horses were reported to be deep, multifaceted and complex. The participants indicated that their relationships with their horses provided an opportunity for them to experience acceptance, nurturance, intimacy, safe touch, physical affection, collaboration, and a sense of mastery. The results of this study suggested that human-animal relationships can be therapeutic and parallel the therapeutic impact of the therapist-client relationships. Based on their findings, Yorke and colleagues recommended that professionals consider incorporating work with horses into their therapy practices.

Summary

Although there are limited studies that examine the human-horse relationship, the research that has been completed is promising in demonstrating the positive benefits that can be obtained by the human-horse relationships. These findings lay the groundwork for exploring the relationships that adolescent girls have with their horses.

Equine-Assisted Psychotherapy

Working with horses in psychotherapy is a relatively new modality. Equine-assisted therapies are being implemented with many different populations, from troubled youth to the terminally ill. Equine-assisted therapy does not rely on a specific theoretical orientation for therapy, and can be incorporated into most psychotherapy models (Karol, 2007; Masini, 2010).

Several organizations have defined the field of equine-assisted psychotherapies, offered education and training, and developed guidelines for safe practice. The two main organizations are the Equine-Assisted Growth and Learning Association (EAGALA) and the North American Riding for the Handicapped Association (NARHA). Each organization has a different philosophy and method of practice and advocates different terminology and treatment approaches. Some of the terms used to describe these types of therapies are equine-assisted psychotherapy, equine-guided psychotherapy, equine-facilitated psychotherapy, equine-assisted education, and equine-assisted learning. In this section, a brief overview of therapies involving horses will be introduced. For the purpose of this study, all forms of therapy with horses will be referred to as equine-assisted therapy.

Some equine-assisted therapy focuses on mental health promotion. There are two major types of psychotherapy with horses: equine-assisted psychotherapy (EAP) and equine-facilitated psychotherapy (EFP). Both require that equine-assisted therapies be facilitated by a credentialed and licensed mental health professional.

Equine-assisted psychotherapy, designed by the *Equine-Assisted Growth and Learning Association* (EAGALA), was founded in July 1999 (Kersten & Thomas, 1997). In EAP, the participants learn about themselves and how they react to others by participating in activities with horses. After the activity, they process the feelings and behaviors that emerge from the session. The focus of EAP is not on riding or horsemanship, but instead on activities that involve working with horses on the ground. In processing the sessions, personal insights are gained from relating the experiences with horses to real life, day-to-day experiences.

Equine-facilitated psychotherapy, the second major type of equine-assisted therapy, gained official recognition in the 1990's when an organization called Equine-Facilitated Mental Health Association (EFMHA) was formed as a branch of the *North American Riding for the Handicapped Association* (NAHRA) (McDaniel, 1998). EFP sessions are different from EAP sessions because they include riding lessons with the riding instructor who is also a mental health therapist. EAP focuses on riding skills, such as driving and vaulting, handling, and grooming.

There are other therapeutic models of working with horses, many of which are offshoots of these two main organizations. Over the last few years, equine-assisted therapies in the mental health field have anecdotally become more recognized as a viable form of therapy. The current models of equine-assisted therapy are still in their infancy; seeking a uniform foundation.

Equine-Assisted Therapy Research

Several studies have examined the benefits of equine-assisted therapy in different populations (Daly & Morton, 2006). In the adult population, the benefits of equine-assisted therapies have been studied with individuals who have physical and emotional illnesses. In the adolescent population, the benefits of equine-assisted therapies have been studied with children with emotional, learning, or mental health issues. (Birke & Brandt, 2009; Brandt, 2004; Lawrence, 1985).

Equine-Assisted Therapy Research with Adults

Equine-assisted therapy helps cancer patients and their families overcome the fear and sense of powerlessness that often accompanies a cancer diagnosis (Erikson, 2005). In a pilot study of breast cancer survivors involved in equine-assisted therapy, participants'

narratives revealed that they felt less stressed after their therapy sessions (Haylock & Cantril, 2006). After reviewing the literature regarding career related consequences for female survivors of intimate partner abuse, Froeschle (2009) described equine-assisted therapy as a creative career counseling method intended to empower abused women. Froeschle's recommendation for this application of equine-assisted therapy has not been associated with any research study.

Several studies examined the benefits of using equine-assisted therapy for individuals with mental illness. Bizub, Joy, and Davidson (2003) conducted a qualitative study with five adult men and women with longstanding psychiatric disabilities who engaged in a ten-week equine-assisted therapy program. Qualitative methods were used to analyze semi-structured interviews. The findings indicated that therapeutic riding provided many benefits including less fear and a greater sense of accomplishment. The participants also reported feeling connected in a relationship with the horse. They developed respect and empathy for the horses and felt they had become a team. The riders also described feeling more capable and gained more insight into themselves through their experiences with the horses. Burgon (2003) combined case study and phenomenological research to examine the experiences of six adult women who had mental illness who participated in equine-assisted therapy. The women reported increased confidence. The participants were also able to transfer the confidence they gained through the experience with the horses to their everyday life experiences.

In another qualitative study, several nurse researchers examined equine-assisted therapy as an intervention for adult female survivors of abuse (Meinersmann et al., 2008). The sample included five women, between the ages of 27 and 49. The women were asked

to describe their experience of equine-assisted therapy. The findings indicated that equine-assisted therapy improved the women's feelings of control, self-esteem, and decreased depression. The researchers suggested that nurses might want to consider referring their patients who have experienced abuse to equine-assisted therapy, or, as advanced practice nurses, become certified to provide equine-assisted therapy as part of their own nursing practice.

Klontz, Bivens, Leinart, and Klontz (2007) measured the psychological benefits of equine-assisted therapy with a pretest-posttest study. Thirty-one men and women, aged 23 to 70 participated in eight equine-assisted therapy sessions. The findings demonstrated significant reductions in psychological distress and increased psychological well-being. The researchers identified the weaknesses in this study as the lack of a control group and the use of a non-random sample. This study, even with its limitations, provides a valuable first step in examining the benefits of equine-assisted therapy.

Equine-Assisted Therapy Research with Children

Roberts et al. (2004) invited psychiatric nursing students to attend an observational and participatory learning experience at an equine-assisted psychotherapy session with children. The authors documented excerpts from the students' journals regarding their perceptions about equine-assisted therapy. One student commented that the horse was really part of the staff, helping the children learn about themselves by giving feedback about the child's behavior. If the child misbehaved, the horse would not move and when the child acted appropriately, the horse would do as the child told it. Another student reported that a child who was not able to pay attention became more focused when grooming the horse. One student reported thinking that equine-assisted

therapy sounded kind of silly, but was able to see how healing and comforting the experience was to the children. Several students commented that getting the children to talk about the horse's feelings opened the door for the children to talk about their own feelings. The students' reports supported the benefits of equine-assisted therapies from an observer's perspective.

Several researchers have examined the effects of equine-assisted therapy on children with emotional, learning and mental health issues. Kaiser, Smith, Heleski, and Spence (2006), examined the psychosocial effects of a therapeutic riding program on at-risk and special education children using a pretest-posttest design. Seventeen at-risk children and 14 special education children, boys and girls, completed several assessment tools measuring anger, anxiety, perceived self-competence, cheerfulness, and physical coordination. All measurements were given before and after an eight-session therapeutic riding program. The findings suggested that the therapeutic riding program helped decrease the level of anger in male participants who were in the special needs program. Additionally, reports from the mothers of these boys suggested improved behavior at home.

Ewing, MacDonald, Taylor and Bowers (2007) used both quantitative and qualitative measures to assess the benefits of a therapeutic riding program on children with severe emotional disorders. The sample included 28 boys and girls ranging in age from 10 through 13. The children were given several instruments measuring self-esteem, depression, loneliness, empathy, and locus of control before and after a nine-week equine therapeutic riding program. Qualitatively, observational data were collected from the children's special education teacher and the therapeutic riding instructor. The quantitative

findings did not indicate significant change in the children after the equine therapeutic riding program, most likely due to the severe disorders that made evaluations very challenging. The low functioning level and learning disabilities of the participants made understanding the questions difficult during the testing. The qualitative reports of observations by the teachers noted that the children experienced positive changes following the program.

The effectiveness of equine-assisted counseling with at-risk children and adolescents was compared to more traditional classroom-based counseling (Trotter, Chandler, Goodwin-Bond, & Casey, 2008). The sample included 164 boys and girls in the 3rd through 8th grade who were high-risk for academic or social failure. Externalizing, internalizing, maladaptive, and adaptive behaviors were measured before and after a 12-week counseling session with equine-therapy or the traditional in-class counseling. The findings indicated that the equine-assisted therapy group had significant improvements in 17 behavior areas, whereas the students in the classroom-based counseling group had significant improvement in only seven areas. The results suggest that equine-assisted counseling is a viable treatment option for this population.

The benefits of equine-assisted psychotherapy with children who had experienced intra-family violence were examined in a pilot study (Shultz, Remick-Barlow, & Robbins, 2007). The sample included 63 boys and girls, between the ages of 4 and 16, who had experienced intra-family violence. The *Children's Global Assessment of Function* (GAF) scale was administered before and after a 19-session equine-assisted psychotherapy program. All children showed improvements in GAF scores. There was a significant correlation between the number of therapy sessions the children attended and

the percentage improvements in the GAF scores. This type of therapy appears to have a normalizing effect on the behavior of the young children involved.

Summary

Most studies examining the benefits of equine-assisted therapies are qualitative in nature. To date, some promising reports have been found, identifying both physical and psychological benefits of working with horses, but there is not yet evidence to fully support the efficacy of equine-assisted therapy. Studies assessing the benefits of equine-assisted therapy work with adults and children indicate that this therapy is a beneficial treatment option. These studies lay a foundation for future research that helps to uncover, in greater depth, how the human-horse relationship facilitates treatment. This understanding will guide the development of even more effective equine-assisted therapies.

Adolescent Girl Concerns

The Youth Risk Behavior Surveillance (2009) surveyed and reported on the health risk behaviors reported by high school students from September 2008 until December 2009. The survey assessed the health-risk behaviors that are often established during childhood and adolescence and tend to extend into adulthood. These risk factors are interrelated and can be prevented. The results indicated that many high school students engaged in behaviors of concern. Within the 30 days before the survey, 28.3% of high school students rode in a car or other vehicle driven by someone who had been drinking alcohol, 17.5% carried a weapon, 41.8% drank alcohol, 20.8% used marijuana. Additionally, 19.5% of the high school students smoked cigarettes during the 30 days before the survey. During the 12 months before the survey, 31.5% of the students had

been in a physical fight, 6.3% had attempted suicide, and 34.2% were currently sexually active. These findings highlight, in a dramatic fashion, the high-risk behaviors of adolescents in this country.

There are gender differences in mental health problems faced by adolescents. Many girls experience a dramatic transition during early adolescence marked by a decline in their self-esteem and self-confidence (Pipher, 1994). Girls who have low self-worth have more trouble coping with the stressors of adolescence (McCauley, Pavlidis & Kendall, 1999). Research shows that eating disorders and unhealthy weight control behaviors are the third most common chronic illness in adolescent girls (Aime, Craig, Pipler, Jiang, & Connelly, 2008). Adolescent girls are nearly three times more likely than adolescent boys to experience a major depressive episode (Centers for disease Control and Prevention (CDC), (2009). Suicide is the third leading cause of death in adolescence (CDC, 2009). While boys are three times more likely to complete suicide, high school girls attempt suicide almost twice as often as boys (CDC, 2009).

Many adolescent girls report using alcohol or drugs to improve mood, increase confidence, reduce tension, cope with problems, lose inhibitions, enhance sex or lose weight (National Center on Addiction and Substance Abuse, 2003). Research indicates that adolescent girls' use of illicit drugs and alcohol is increasing. The use of cigarettes in adolescent girls has surpassed those of boys. Since 2002, more adolescent girls than boys started using marijuana and in 2004, more girls than boys started using alcohol and cigarettes (National Survey on Drug Use and Health, 2002, 2004). Adolescent girls are often more concerned about their weight more than boys, leading to diet pill use among

girls that is two and a half times to four times as high as among boys (National Institute of Drug Abuse, 2005).

Adolescence is a stressful time. Stress has been found to be a major reason for drinking, smoking, and using drugs among adolescent girls (Commonwealth Fund, 2010). Peer pressure has a substantial influence on adolescent girls. Adolescent girls are more likely than boys to drink to fit in with their friends (Donovan, 1996). Teenage girls who abuse drugs and alcohol are more likely to be at sexual risk (Kaiser Family Foundation, 2002). In 2009, the Centers for disease Control and Prevention reported that risky sexual behavior in adolescents resulted in 9.1 millions cases of sexually transmitted infections, more than 5,000 cases of HIV/AIDS and 757,000 pregnancies among adolescent girls.

There is substantial evidence of the growing risk to the health status of today's adolescent girls. These findings emphasize the need to develop effective, innovative interventions. Because adolescent girls seem to have a natural attraction to horses and are typically more involved with horses than boys, they may be more likely to accept and benefit from equine-assisted therapies.

In addition, a growing number of adolescent girls present with developmental and mental health concerns that might be amenable to this type of treatment. High incidence of depression, anxiety, eating disorders, risky sexual behavior, psychiatric disorders, and physical or sexual abuse have been identified in adolescent girls (Youth Risk Behavior Surveillance, 2009).

One strategy that has been used with some apparent success is equine-assisted therapy. This modality may be especially effective for adolescent girls because of their natural affinity toward horses.

Summary

Five main conclusions are drawn from this review of the literature: (a) Attachment and commitment to a companion animal has positive psychological and physical health benefits, (b) Animal-assisted therapy, particularly with dogs and cats, is effective in treating a wide range of psychological and physical conditions and disorders, (c) Foundational research suggests that EAP is a useful treatment modality, (d) The mechanism for treatment effectiveness has not been clearly established and is likely embedded in the human-horse relationship; this relationship has not yet been fully described, and (e) A substantial proportion of adolescent girls engage in risky behavior and/or suffer from developmental or emotional disturbance. A thorough understanding of the nature of the adolescent girl-horse relationship will guide the development of equine-assisted therapies. These therapies may offer a viable treatment option to help adolescent girls development emotionally and physically into healthy adults.

CHAPTER III: METHOD

The purpose of this research was to describe the essence of the relationship between adolescent girls and horses in order to obtain a greater understanding of the potential benefits of utilizing equine-assisted therapies with adolescent girls. Such information will provide a foundation for developing equine-assisted therapy programs by identifying those aspects of the relationships between adolescent girls and their horses that may yield therapeutic benefits. The research question that this study addressed was, “What is the essence of the relationship between adolescent girls and horses?”

In order to describe the essence of the relationship between adolescent girls and horses, these relationships were examined in two types of settings: recreational riding centers and a therapeutic riding center. Girls who interacted with horses recreationally are likely to have a natural attraction to horses, whereas girls who interact with horses through therapeutic involvement are likely to have different motivations and needs in regards to their involvement with horses. Comparing and contrasting the experiences of the girls in the two settings allowed for the determination of essential components of the relationship between adolescent girls and their horses.

The specific aims of this study were therefore to: 1) Describe the relationship that adolescent girls had with their horses in a recreational context; 2) Describe the relationship that adolescent girls had with horses in a therapeutic setting; and 3) Compare

and contrast how the girls in the two settings described the relationships they have with horses.

Philosophical Foundation

An interpretive phenomenology study was conducted. Phenomenology is the study of the meaning of experience (Cohen, Kahn, & Steeves, 2000). Studying persons, events, and practices in the language of the participants will lead to an understanding of their world as they see it (Benner, 1994).

Current phenomenological research in nursing has been influenced most by Edmund Husserl (1859-1938) and Martin Heidegger (1889-1936), two German philosophers. Husserl was a central figure in the development of phenomenology. Heidegger was Husserl's assistant and student. Descriptive phenomenology is based on Husserl's philosophy, whereas interpretive phenomenology is based on Heidegger's philosophy (Cohen, Kahn, & Steeves, 2000). Each strategy reflects a different worldview.

Husserl believed that there are essential structures to human experience that take on meaning when they are apprehended in consciousness. The goal of descriptive phenomenology is to describe the meaning of an experience from the perspective of those who have had the experience. In doing this, researchers must bracket their presuppositions by identifying their assumptions related to the phenomenon of interest prior to data collection and holding these assumptions in abeyance while conducting the study. The findings of descriptive phenomenological research are descriptions that are fundamental and essential to the experience, regardless of who is having the experience (Johnson, 2000).

In contrast, the goal of interpretive phenomenological research, based on

Heidegger's philosophy, is to examine interpretations of lived experiences to increase understanding of the meaning of human experiences and practices. The researcher is an active participant in the interpretive process rather than a recipient of knowledge. The researcher does not bracket his or her previous experience and knowledge, but rather seeks convergence of his or her understanding of the phenomenon, participant-generated data, and other data sources. In interpretive phenomenology, human beings are seen as fundamentally self-interpreting beings for which things have significance. Heidegger believed human action always involves interpretation. Hermeneutic phenomenology involves the interpretation of being rather than the reduction of human phenomena to characteristics, properties and data (Plager, 1994).

Interpretive phenomenology is based on the belief that one cannot separate the meaning of an experience and the meaning that is based on interpretation. The phenomenological view of person requires thinking beyond the qualitative–quantitative, objectivism-relativism debate and involves a shift from the tradition of prediction and control (Leonard, 1989). The goal of hermeneutic or interpretive research is to understand experiences and to find commonalities in meanings, skills and practices (Benner, 1994). Looking at the everyday lives of people opens up a new understanding of the person.

Hermeneutics is based on several assumptions from the Heideggerian view of person (Leonard, 1989). Heidegger discussed preunderstanding, a fore structure of understanding that allows us to have a sense of the totality of relations that constitute the phenomenon. In this method, the researcher is thought to have preliminary understanding of the human experience being studied. The researcher's conceptual orientation toward the phenomenon allows access to the phenomenon but remains open to new meanings

and understandings (Leonard, 1989).

The interpretive process is circular with constant moving back and forth between part and whole. The whole is considered first, the parts of the whole are then examined, and then the whole is reexamined with the insights that the parts have given. The process results in a deeper, more authentic analysis. The researcher is advised to stay true to the text of the lived experience of the participants (Leonard, 1989). The interpretive process has no clear endpoint because interpretations constantly evolve (Cohen et al., 2000).

Another assumption of hermeneutics is that because the researcher is in the world and exists in time just as subjects do, it is impossible to have an objective valid interpretation. The goal of hermeneutics is not eternal truth, but rather a shared understanding of a phenomenon (Cohen et al., 2000). In this research, the presentation of the voices of the adolescent girls and the provision of interpretive commentary resulted in new understanding about the phenomenon of the relationship that adolescent girls have with their horses.

This study focused on the nature of the lived experiences of adolescent girls as they related to horses. Interviews were used to collect data. Themes were developed from the recorded and transcribed narratives.

Sample

Experts suggest that a typical number of participants in a phenomenological study is approximately six to ten (Morse & Field, 1995). Because this study investigated the relationship between adolescent girls and their horses in two contexts, a sample of 20 participants (ten from the recreational riding centers and ten from the therapeutic riding center) was anticipated.

Selection criteria included girls who were: a) between 13 and 17 years of age; b) involved with horses either recreationally at a private riding center or therapeutically at a therapeutic riding center; and c) willing to talk about their experiences with horses. The girls in the recreational riding center had to be involved with horses for at least one year, to be certain that they had enough experience with their horse to be able to provide a rich description of their relationship. The girls in the therapeutic riding center had to be actively involved in or had participated in the equine program for at least 12 weeks, to increase the likelihood that they had enough time with horses to describe their relationship in depth.

Settings

Potential participants were recruited from different horse-focused riding centers located in Northeast Ohio. The riding centers included five recreational riding centers and one therapeutic riding center.

Recreational Riding Centers

All of the recreational riding centers are privately-owned stables that offer horse boarding and riding lessons. The riding lessons are open to the public. Riding lessons are ongoing, and students can join and leave the programs at anytime. The lessons typically last approximately an hour with several students in each lesson. The girls are placed in a particular lesson based on their riding abilities. The purpose of the riding centers is to offer recreational riding.

Therapeutic Riding Center

The therapeutic riding center is a nonprofit organization that was founded in 1995. The mission of the center is to help adolescents between the ages of 13 and 18 who

have emotional and behavioral challenges and/or physical illnesses improve self-esteem, attention span, communication skills, socialization and physical fitness through working with and riding horses. Teachers, counselors, physicians, and parents refer adolescents to the program. The program provides a personalized therapeutic horseback-riding program that includes three 12-week riding sessions per year. As well as learning to ride, the children learn how to groom and prepare the horses for riding. The riding lessons are given to small groups to meet the individual needs of the adolescents. The adolescents are grouped in classes according to their age and riding ability. The sessions provide the opportunity for the adolescents to develop friendships with each other while gaining horsemanship skills.

Recruitment

Approval from Kent State University's Institutional Review Board (IRB) was obtained before recruiting participants. None of the riding centers had an institutional review board, but permission was granted from each riding center's owner/director prior to recruitment. Initially, participants were given a key-chain with an engraved horse in appreciation for their participation. When recruitment activity slowed down, with approval by the IRB, participants were given \$20 as an expression of appreciation for their time and effort.

At the recreational riding centers, the researcher provided an explanation of the research study to the owners of the centers and obtained permission to recruit participants. The center owners were also provided a handout with an explanation of the study (see Appendix G). A flyer with information about the study was posted on the wall of the recreational riding centers inviting all girls who met the criteria to inquire about

participation in the study (see Appendix F). A phone number was included so potential participants could call to inquire about the study and discuss participation. The flyer originally stated that the participants would receive a horse key-chain in appreciation for their participation but this was later changed to reflect the \$20.00 incentive. Girls who were interested in participating in the study were invited to discuss the study with the researcher or with the riding centers' owners. After learning about the details of the study, if the girls continued to be interested in participating, the researcher or riding center owners provided information about the study to the parents/guardians. If the parents/guardians agreed to have their adolescent participate in the study, they signed the parental consent forms (see Appendix B).

The interviews were then scheduled at a convenient time. At the therapeutic riding center, the researcher met with the directors to discuss the study and answer any questions. The researcher also provided the facility directors with a handout that explained the study (see Appendix G). Permission was obtained from the director to utilize the facility to recruit the adolescent girl participants.

A flyer was not used in this setting. Instead, the program director discussed the study with the girls based on the overview of the study provided by the script (see Appendix G). The girls were offered a horse key-chain in appreciation for their participation. All of the girls in this setting were recruited prior to the change in incentive. After identifying girls who met the criteria and who were interested in the study, the program director discussed the study with the girls' parents/guardians. If the parents/guardians agreed to have their child participate in the study, they signed parental consent forms (see Appendix B). The director then scheduled the interviews at a

convenient time.

Interviews

The interviews took place in private areas where interruptions were not likely. The primary investigator, who is a psychiatric clinical nurse specialist, a certified equine-assisted psychotherapist, and an avid equestrian, conducted the interviews. Before the interviews began, the researcher reviewed the study procedures with each of the participants, informing them that they were not obligated to participate, could stop the interview at any time, and may decline to answer any questions. The participants were assured that their identities would remain confidential and that their names would not be used in any publications. They then signed the consent forms.

Next, the following demographic data were collected: age, number of siblings, age order of siblings, identification of family members living in their household, type and number of pets owned, and hobbies. This demographic data provided a broad description of the sample as a whole. Information about other pets and hobbies was collected to allow description the girls' interests and activities beyond horse involvement. Contact information was obtained if the participants agreed to do a follow-up interview, if needed.

The interviews began with a broad opening question, "Tell me about yourself," followed by, "Tell me about your horse." The remainder of the interview was guided by the participant's responses and by the interview guides. See the interview guide in Appendix E-1, for the girls in the recreational riding centers. This interview guide consisted of open-ended questions asking the participants how they felt about their horse, how they believed their horse felt about them, and how they may have changed due to

their relationship with their horse. The interview guide in Appendix E-2, for the girls at the therapeutic riding center, also consisted of opened ended questions. This guide not only asked how the girls and their horses felt about each other, but also included areas such as how they felt they may have changed due to the horses and the program.

The interviews were completed in 1-2 hours. At the end of the interviews, the girls were thanked and given a horse key-chain or \$20.00 in appreciation for their participation.

The audiotapes were then transcribed and checked for accuracy. The participants were not identified on the transcripts. Each participant was given a code made up of letters, and only the researcher who conducted the interview was able to identify the participant. The tapes were destroyed after they were transcribed. All of the permission forms were kept in a locked file at Kent State University.

Analysis

The data were analyzed in a disciplined and systematic manner according to modified procedures outlined by Diekelmann and Allen (1989).

The data were analyzed in seven stages:

1. The primary researcher read and reread the transcripts and became immersed in the data as a whole to get an overall understanding of each girl's relationship with her horse. The researcher then read over parts of each girl's transcript, then reread the whole transcript, and back to the parts again, in an iterative fashion to facilitate a full understanding of the experience.

2. The researcher wrote an essay that summarized the essence of each transcript.

The summary was given a title to capture the main story line. The researcher

highlighted salient or recurring text units from the transcripts that enlightened understanding of each individual's experience. These text units were displayed under the written summary of each transcript, accompanied by the line numbers of the text. The text units were given a descriptive label.

3. Each essay, with highlighted text units, was given to the dissertation chair and co-chair to review. Meetings were held with the team, made up of the primary researcher, the dissertation chair, and the dissertation co-chair, to review and discuss each transcript. The primary researcher wrote memos that reflected these discussions on each transcript.

4. After all of the transcripts were analyzed and discussed individually, meetings took place between the primary researcher, the chair and the co-chair on a bi-monthly basis, or as needed, to discuss emerging interpretations. Possible themes were discussed. The primary researcher kept memos reflecting each discussion.

5. Text units were examined for similarities and differences and assigned to emerging themes. Interpretations that were not clear or supported by data were re-examined by returning to the transcripts.

6. Six themes were identified. The primary researcher wrote in-depth descriptions of each of the themes and supported them with extensive documentation and excerpts from the girls' transcripts.

7. Within each theme, text units from the girls in the recreational riding center and the therapeutic riding center were compared and contrasted. Similarities and differences were identified.

8. With support and guidance from the dissertation chair and co-chair, a final report was written. Specific excerpts from the transcripts were used as concrete data to provide a realistic and accurate portrayal of this phenomenon and validate the findings.

9. One girl from each of the two riding groups was chosen as an exemplar representing her group. These exemplars were girls that conveyed rich examples supporting most of the six themes.

Evaluation

A purposeful sample of adolescent girls was selected to include informants with a rich experience and knowledge of the phenomenon. Interviews were continued until responses became repetitive and saturation was obtained. To ensure methodological rigor, an audit trail of all methodological and analytic decisions was kept. All notes, comments and feedback from the research team were kept on file. To maintain neutrality, the researcher identified any biases, and consulted regularly with the team. Regular researcher debriefings were held to discuss the findings with the team. Other possible explanations that the researcher may have overlooked were explored. The researcher wrote drafts of the findings that were reviewed by the research team, who were familiar with the content and methodology. The experiences, according to the perspectives of the adolescent girls, were written as clearly as possible to maintain credibility. In regards to consistency, each girl's situation was unique and variation in experiences were recognized and expected.

CHAPTER IV: RESULTS

The purpose of this research was to describe the essence of the relationship between adolescent girls and horses in order to obtain a greater understanding of the potential benefits of utilizing equine-assisted therapies with adolescent girls. A Heideggerian approach guided the study. Adolescent girls were interviewed in two types of settings: recreational riding centers and a therapeutic riding center. The participants were asked to describe their relationships with horses. The interviews were analyzed using the techniques outlined by Diekelmann and Allen (1989). Common themes were identified and presented below. The themes are *sharing physical affection, being there for each other, being connected, dealing with stress, being good at something, and being a better person*. The first three themes are related to the nature of the girl-horse relationship, and the second three themes are related to the benefits the girls experience from their relationships with their horses. The ways the themes were manifested in each group are described and comparisons are made between girls at the recreational riding centers and those at the therapeutic riding centers.

Settings

The sample included 19 girls between the ages of 13 and 17 who rode horses regularly. Ten girls were interviewed from a variety of recreational riding centers in the Northeast Ohio area, and nine girls were interviewed at a therapeutic riding center in Northeast Ohio.

The owners of the recreational riding centers provided private rooms for the interviews. The rooms were used for riding observation and were unoccupied during the interviews. The rooms were quiet and offered little distraction. A couple of girls were interviewed in a quiet area of a public facility, also with little distraction.

The directors of the therapeutic riding center provided a private room for the interviews to take place. It was the waiting room for a large animal veterinary clinic that was located next to the riding facility. The clinic was not in session, and the room was empty for all of the interviews. The room was quiet and offered little distraction.

Sample

A purposive sample of 19 adolescent girls was recruited. The girls in the sample ranged in age from 13 to 17, with an average age of 15. Table 1 displays the demographic characteristics of the participants. Seven of the girls were the oldest in their family, and three were only children. The girls had a wide variety of hobbies; seven participated in sports; eight engaged in music, dancing, and drawing and four liked to read. Most of the girls had other pets, especially dogs (15) and cats (16). Six of the girls had birds and fish, three had farm animals, and two had more unusual pets such as a turtle and a chinchilla. As seen in Table 1, there were no major demographic differences apparent between the two groups of girls.

Table 1

Demographic Data

	Recreational Group (N=10)	Therapeutic Group (N=9)
<hr/>		
Age		
13	3	2
14	1	1
15	3	2
16	2	2
17	1	2
Birth Order		
Oldest	5	2
Middle	2	4
Youngest	2	1
Only	1	2
Hobbies		
Sports	4	3
Reading	1	3
Dancing	1	1
Arts	2	2
Music	0	2

Other pets

Dogs	8	6
Cats	7	8
Birds	1	1
Fish	1	3
Farm animals	3	0
Turtle	1	0
Chinchilla	0	1

All of the girls in the recreational riding group were involved in a riding lesson program, and some owned their own horses. Two of the girls worked after school at the barn and the tack shop in exchange for free riding lessons. Three of the girls grew up with horses and had family members who were involved with horses. Some of the girls had been riding just a few years and were the only members of their families who rode horses.

The girls interviewed at the therapeutic riding center had a variety of emotional needs that precipitated their involvement in the therapeutic riding program. The girls experienced family problems such as parental divorce and parental incarceration. Some girls were placed with foster families. Some had learning disabilities, and several had mental health concerns involving depression and anger control.

Interviews

Before the interviews took place, the girls signed consent forms (see Appendices A and C) agreeing to be interviewed and audiotaped. The interviews ranged from 45 to

75 minutes and averaged 1 hour in length. The interviews took place from July 2008 through October 2010.

At the recreational riding centers, most of the parents or guardians did not wait for the girls to complete the interviews because they had been dropped off at the riding center for the day. Some girls were working at the stables and were given time from their workday to participate. The girls appeared to enjoy talking about their experiences with horses. Some were forthcoming about their thoughts and feelings during the interviews. Others were shy and somewhat short in their responses, but became animated when talking about their own horses. The girls overall needed little verbal prompting and had good communication skills.

At the therapeutic riding center, the parents or guardians waited for the participants in the main barn or dropped them off and picked them up later in the day. Some of the girls had difficulty expressing themselves, as evidenced by their short responses. Some could not answer some of the interview questions. Others were distracted by pictures and decor in the room, but were easily guided back to the interview. One participant had had a difficult experience with her riding lesson and had an outburst in the barn just before her interview. She was offered the opportunity to reschedule the interview at another time, but calmed down and proceeded with the interview.

Findings

The girls in both groups indicated that horses were important to them. The first thing the girls generally brought up during the interviews was that horses had personalities. The horses were described as intelligent, gentlemen-like, dependable, kind,

sweet, nice, calm, loving, understanding, nonjudgmental, never rude, funny, trustworthy, spunky, and, at times, cranky and stubborn. The girls often attributed human-like characteristics to their horses and referred to them as children, siblings, friends or even lovers. One girl stated that when she pulled up in the driveway her horse thought, “Mom’s home!” Another girl described her horse as a big brother who protected her. One girl described her horse as her “Prince Charming.” Another stated, “He [her horse] is my love. I might just have to run away one day to get married to him.”

The girls discussed two main topics as the interviews progressed. They described the nature of their relationships with their horses: what they did together and how they related to one another. They also described how they benefited from their relationships with their horses. These two topics provided the foundation for the themes that were identified.

Six themes emerged that reflected the essence of the relationship between the participants and the horses. The themes are presented in Table 2 and described in more detail below. The first three themes are related to the nature of the relationship between the girls and the horses and the last three themes are related to the benefits the girls experience as a result of the relationships. While the themes were evident in the narratives of both groups, the ways in which they were manifested differed. Participant data and quotes are used to illustrate the themes. Differences between the recreational riding group and the therapeutic riding group are identified.

Table 2
Themes

	Theme	Recreational Group	Therapeutic Group
The nature of the relationship between adolescent girls and horses	Sharing Physical Affection	Being tender and loving (girls and horses)	Being dutiful (girls) Being non-aggressive (horses)
	Being There for Each Other	Being lovingly attentive (girls) Being accepting (horses)	Seeking closeness (girls) Being tolerant (horses)
	Being Connected	Sharing a special knowing (girls and horses)	Having a heightened awareness of the others' distress (girls and horses)
The benefits of the relationship to the girls	Dealing with Stress	Feeling Peaceful	Forgetting ones' troubles
	Being Good at Something	Excelling	Mastering a challenging task
	Being a Better Person	Achieving self-improvement	Overcoming deficits

The Nature of the Relationship

Sharing Physical Affection

The participants indicated that an important aspect of their relationships with horses was the *sharing of physical affection*. The girls engaged in a variety of physical gestures indicative of how much they cared about their horses and believed that their horses also showed signs of physical affection towards them. This theme is labeled *sharing physical affection* to reflect the reciprocal nature of the physical expressions of caring in the interactions between the girls and their horses.

The girls in the recreational riding group shared physical affection with their horses in a variety of ways. Because the girls bathed and brushed their horses tenderly and leisurely, grooming was not just a mundane task but a manifestation of how they lovingly cared for their horses. The girls brushed their horses “for hours” because they felt that the horses loved to be brushed. The connection between grooming and caring was particularly evident in one girl’s comments: “Horses love getting groomed. It’s like you’re spending time with them. Like a bedtime story and getting a back rub from your mom.” The participants also shared affection by hugging and kissing their horses. The girls felt that their horses returned their affection with physical gestures as well. One girl’s horse, for example, would put his head on her chest, bite her hair and stick his “little nose” out.

The girls in the therapeutic riding group also shared physical affection with their horses. These girls viewed providing physical care for their horses as a series of tasks. One girl stated, “You groom them, clean the stalls, give them water, and feed them.” Providing physical care for the horses also involved preventing harm from coming to them. One girl, for example, made sure her horse did not get spoiled food and nothing was wrong with his body. The girls felt that their horses showed physical affection toward the girls by nudging at them, “lipping” them and putting the horses’ heads on the girls’ shoulders. Mostly, however, the horses showed affection towards the girls by not harming them. One participant said, “He is really sweet, he’ll go and lip at you and he won’t bite you.” Another said, “They [the horses] are nice to me... when I go into the stable they don’t show any aggression towards me.” These girls, therefore, equated physical affection with the absence of aggression.

While the two groups both shared physical affection with their horses, there were some notable group differences in how this affection was manifested. The girls in the recreational riding group petted their horses and groomed them dotingly, and the horses in return nuzzled and cuddled with them. The girls in the therapeutic riding group, on the other hand, groomed their horses dutifully and protectively, and their horses in return did not hurt them. Whereas the essence of the *sharing physical affection* in the recreation group was being tender and loving, the essence of the *sharing physical affection* in the therapeutic riding group was being dutiful (girls) and being non-aggressive (horses).

Being There for Each Other

The participants indicated that an important aspect of their relationships with horses was *being there for each other*. The girls provided a variety of examples of how they were “there” for their horses and their horses were “there” for them. The theme is labeled *being there for each other* to reflect the participants’ beliefs that they and their horses could depend on each other for emotional caring and support and were a consistent presence for each other.

The girls in the recreational riding group demonstrated the experience of being there for each other with their horses in a variety of ways. The girls were there for their horses by spending time with them, paying attention to them, talking to them, and being gentle with them. According to the girls, being there was important because it made their horses happy. The horses were there for the girls by waiting for them, greeting them, and following them around. These behaviors made the girls feel loved unconditionally, understood, and accepted. The horses were also there for the girls by providing a nonjudgmental listening ear. The girls were comfortable confiding in their horses because

the horses were good listeners and could not divulge the girls' disclosures or give them advice. The girls therefore told the horses things they could not tell anyone else - not even their best friends or their mothers. One girl explained, "You can talk to your horse and they won't say, 'oh, it's gonna be fine,' cause when something's wrong it doesn't seem like it's gonna be fine."

The girls in the therapeutic riding group also demonstrated the experience of being there for each other with their horses in a variety of ways. Only a few of the girls felt they were there for their horses emotionally. Mostly, the girls tried to get close to and trust their horses. One girl felt her horse was sad if she was not around. The horses were there for these girls by being nice to them, not getting mad at them, comforting them when they had problems and putting up with them. The girls believed that the horses listened to them and protected them. The horses accepted the girls and cared about them, even when they did something wrong. Another girl stated, "Your horse is there and he is gonna like you just as much as before, no matter what you do."

While being there for each other was important for both groups, there were some notable differences in how this experience was manifested. The girls in the recreational riding group were there for their horses by showering them with time and attention, and the horses were there for the girls by serving as trustworthy confidants. The girls in the therapeutic riding group, on the other hand, tried to be there for their horses by forming a close and trusting relationship, and their horses were there for the girls by putting up with them despite their shortcomings. Whereas the essence of *being there for each other* in the recreational riding group included being lovingly attentive (the girls) and being accepting

(the horses), the essence of *being there for each other* in the therapeutic riding group included seeking closeness (the girls) and being tolerant (the horses).

Being Connected

The participants indicated that an important aspect of their relationships with horses was *being connected* with them. The girls provided a variety of examples of how they were connected with their horses. The theme is labeled *being connected* to reflect the participants' special bond with horses. The connections were based on an unspoken and unexplainable way of knowing and understanding each other. The girls "just knew" how the horses felt, and the horses "just knew" how the girls felt.

The girls in the recreational riding group demonstrated being connected with their horses in a variety of ways. They felt they clicked, bonded, and formed a "team" with their horses. The connection did not automatically occur; it took time and hard work to "get on the same page." Being connected strengthened over time; the more time the girls spent with their horses, the more connected they became. For these girls, being connected involved an implicit knowing about the other. One girl explained, "You don't have to say anything to the horse, they just know." This implicit knowing was mutual. Another girl pointed out, "They [horses] just know what to do." Special connections often occurred with one particular horse. As one girl explained, "The horses' personalities are so different that you only click with some."

The girls in the therapeutic riding group also demonstrated being connected with their horses in a variety of ways. A few experienced a sense of mutual knowing. Some felt connected to and bonded with their horses. Mostly, however, the girls and the horses knew when the other was distressed and needed comforting. The girls could tell when the

horses were nervous, frustrated, “hyper,” or unhappy. One girl, for example, sensed when her horse was frustrated or bothered. The girls believed the horses knew what the girls felt. For example, one girl explained, “It seems like they can just know when you need comfort.”

While being connected with their horses was important for both groups, there were some notable differences in how this experience was manifested. All the girls in the recreational riding group felt a special connection with their horses based on mutual knowing. A few girls in the therapeutic riding group felt this connection, but primarily when they or their horses were distressed. The girls in the recreational riding group stressed the importance of time and hard work in developing a connection, whereas the girls in the therapeutic riding group did not - the connection was just there. Whereas the essence of *being connected* in the recreational riding group was a sharing of a special knowing, the essence of *being connected* in the therapeutic riding group was having a heightened awareness of the others’ distress.

The Benefits of the Relationship to the Girls

Dealing with Stress

The participants indicated that an important benefit of their relationships with horses was dealing with stress. The girls provided a variety of examples of how their interactions with horses helped the girls reduce or alleviate stress. The theme is labeled *dealing with stress* to reflect the participants’ beliefs that their horses helped the girls manage their life stressors.

The girls in the recreational riding group demonstrated dealing with stress through their interactions with their horses in a variety of ways. The girls experienced a sense of

peace and felt relaxed, calm, and free when they were with their horses. One of the girls explained, “Something about it [being with horses] makes me relaxed, and I have a really good time. I come to the barn and I go into a special mood where I am like, really calm and can get things done. And I just like relax.” Being with their horses freed the girls from everyday life stressors. One girl stated that she does not “have to worry about anything” when she is with horses. Another stated, “Burdens just come off and wash away.” The girls were carefree when they were with their horses.

The girls in the therapeutic riding group also demonstrated dealing with stress through their interactions with their horses in a variety of ways. Nearly all of the girls felt that being with the horses helped them “forget” about their troubles. They could “get away” from distressing life circumstances because the horses took their minds off their worries. Often, the horses provided relief from situations that provoked the girls’ anger or that involved aggression. The horses helped them forget about fights, school problems, and conflicts with other people. One of the girls stated, “It takes me away from my friends, who may be annoying, and it takes me away from school, and it just lets me be myself and hang out with other people and relax and everything. It takes me into another world, another atmosphere.” Being around the horses helped the girls temporarily escape from their troubled lives.

While dealing with stress was important for both groups, there were some notable differences in how this experience was manifested. Both groups felt more relaxed around horses, but the nature of the relaxation differed. The girls in the recreational riding group felt that being with the horses helped them deal with stress by creating a state of relaxation; they were away from daily cares. The girls in the therapeutic riding group, on

the other hand, felt that horses helped them deal with stress by allowing them to forget the conflicts and worries that troubled them in their daily lives. Whereas the essence of *dealing with stress* in the recreational riding group was feeling peaceful, the essence of *dealing with stress* in the therapeutic riding group was forgetting one's troubles.

Being Good at Something

The participants indicated that an important benefit of their relationships with horses was the sense of *being good at something*. The girls provided a variety of examples of how they were good at working with, handling, or riding horses. The theme is labeled *being good at something* to reflect the participants' beliefs that their relationships with their horses enabled them to accomplish something unique. The skills they developed made them feel special and accomplished.

The girls in the recreational riding group demonstrated the sense of being good at something in regards to their horses in a variety of ways. Most girls rode in competitions, and many won or placed at the shows. Being good at working with horses was associated with advancing their riding skills. One of the accomplishments that several girls mentioned was winning many ribbons. One girl stated, "I am in with the big time people." The girls were very confident and proud of their accomplishments with horses. As one girl explained, "I love being able to see the progress that I have made with her [the horse]. I feel like being on her shows how good I really am."

The girls in the therapeutic riding group also demonstrated the sense of being good at something in regards to their horses in a variety of ways. When they spoke of being good at something, however, they often diluted this claim pointing out their shortcomings. As one girl put it, "I'm pretty good, but I am no horse whisperer or

anything.” Another girl pointed out that it took her a few years to be able to ride well. Most of the girls were surprised at what they were able to learn and felt pleased to discover that they could actually ride. One girl stated, “Whoa, how did I get from that to this?” Another girl said, “It’s like wow, we can actually do this, we actually accomplished something.” Despite not being accomplished at other things in their lives, they were able to ride horses. One girl said, “ I’m really good at riding horses... Like my disability, it prevents me from doing stuff and everything, so it’s like, I just wanna do something in my life that I can actually do....” For most of the girls, cantering in particular made them feel accomplished. Cantering, which is a fundamental riding skill, appeared to be the milestone for this group.

While being good at something was important for both groups, there were some notable differences in how this experience was manifested. The girls in the recreational riding group were competitive and accomplished riders. The girls in the therapeutic riding group, on the other hand, were less confident in their abilities. For them, horses provided a vehicle by which they felt proficient at at least one thing. None of the girls in the recreational riding group discussed cantering, most had been riding so long they could not remember the first time they cantered. On the other hand, most of the girls in the therapeutic riding group indicated that cantering was a breakthrough for them. Whereas the essence of *being good at something* in the recreational riding group was excelling, the essence of *being good at something* in the therapeutic riding group was mastering a challenging task.

Being a Better Person

The participants indicated that an important benefit of their relationships with horses was *being a better person*. The girls provided a variety of examples of how they became better persons as a result of their relationships with their horses. The theme is labeled *being a better person* to reflect the participants' beliefs that their relationships with horses helped them develop important personal attributes.

The girls in the recreational riding group described being better people as a result of their relationships with their horses in a variety of ways. The girls felt they possessed positive qualities, and their relationships with their horses enhanced these qualities. The horses taught the girls life lessons and helped them grow as people. As a result of their relationships with horses, the girls became kinder, more responsible, more outgoing, more observant, more confident and friendlier. One girl stated, "Anything you do with horses can be turned into a life lesson." Another girl said, "The horse gives most lessons, and it is something new everyday... helps you become a different person." The girls also identified situations with their horses that they applied to everyday life. One said, "If you can handle a situation [on horses] then you can handle a situation off of a horse." Another pointed out, "Horses are like my best friends in my life, so I think that affects other relationships I'll have in my life."

The girls in the therapeutic riding group also described being better people as a result of their relationships with their horses in a variety of ways. The horses helped them overcome their faults. As a result of their relationships with horses, a few became less mean, less depressed and less shy. One girl stated, "I used to be really bad to my brothers; now I'm not. So, I feel it's like, changing me. I used to be really mean and stuff."

While being better people was important for both groups, there were some notable differences in how this experience was manifested. Being with the horses helped the girls in the recreational riding group enhance their positive personal qualities. For the girls in the therapeutic riding group, being with horses helped them address their shortcomings. Whereas the essence of *being a better person* in the recreational riding group included achieving self-improvement, the essence of *being a better person* in the therapeutic riding group included overcoming deficits.

Exemplars

All nineteen of the girls contributed to the development of the six themes. Detailed descriptions of two participants, one from the recreational riding group and one from the therapeutic riding group, are presented here. The ways in which each girl exemplified each theme is discussed. The girls are referred to with fabricated initials to protect their identity.

Recreational Riding Group: M.O.

M.O. was a 15 year-old girl in the tenth grade. She was a straight A student who attended honors classes. Her hobbies were horseback riding, volleyball, and tennis. She lived at home with her parents and a 19 year-old sister. She had one dog at home.

M.O. leased a horse at the recreational stable. She had ridden horses since she was 5 years old. M.O. stated she was very focused on school and riding. She often studied until 1:00 a.m. in the morning so she could ride her horse during the day. Riding was a priority for M.O. for which she always made time.

M.O. shared physical affection with her horse. She enjoyed sitting and brushing her horse for hours at a time. M.O.'s horse also demonstrated physical affection for her.

M.O. stated:

... her head is right on your shoulder, like as close as possible to you. I don't know, I've seen other people walk her and she's way to the side...but like, we have just done a lot together that like she feels secure with me.

M.O. felt that she and her horse were there for each other. Her relationship with her horse was loving, and M.O. considered them a team. M.O. enjoyed just spending time with her horse. M.O. stated, "I love being around other people, but the best is just to be with my horse in her stall, or I bring her out into the aisle and listen to my iPod if my friends aren't there." She felt her horse also valued their time together and had some "separation issues" when they were apart. For example, her horse whinnied for her whenever she left.

M.O. had a connection with her horse and felt that they clicked. M.O. felt this connection enabled her and her horse to be able to "read" each other and therefore share a special bond. She stated:

...we started clicking and now she'll like whinny every time I pass. There's like a great connection there. She knows who you are and you can pick her out by the way she is. I am the only one riding her, so she's definitely gotten used to my touch and not other peoples' [touch]. A big part of getting close to her is, I can, like, read her now. But there was just something that just clicked with me, like,

being able to communicate with this huge animal and having them take care of you, and having to communicate, like you and your body.

M.O.'s horse helped her deal with the stress in her life and made her feel more relaxed and peaceful. She stated, "Yeah, like when I get stressed, I'm at the barn. Like 'Mom, I need to go to the barn'." After spending time with her horse, M.O. came home feeling much better. M.O. stated:

I can't imagine not riding. We go on vacations for like two weeks over the summer and by the end I'm just like, "Get me on a horse." You just miss the feeling, and the sound, and the smell. It's just like when some friends walk in the barn they're like "Ugh, that's disgusting." But like I associate that smell with horses and I associate horses with ... it's just like therapeutic for me. It's like a good smell to me. It makes me think about riding and makes me like 10 times happier. I associate horses with...it's just like, therapeutic for me...I don't know how they connect. Like riding becomes a stress-reliever, like everything just has to go right here 'cause if you're not focused like, like your horse will feel it and she'll be, you know, everywhere. So like you have to put your whole focus on it and not think about your homework and stuff.

M.O. felt accomplished as a rider and noted that being good at something was an important benefit of her relationship with the horse. She loved to see the progress that she and her horse made. She explained, "And I just feel so accomplished, even if you're just trotting around. And it's the physical work too 'cause I could ride like with the endorphins, that like, but you're so confident and have strong legs." M.O. felt good when she received positive feedback from her riding instructor. M.O. said:

Our instructor says, “It takes special rider like you to be able to ride her [the horse].” You know, it just makes your day, like that she lets you on her. Being on her shows how good I really am...Like riding, it makes a difference when you’re good. Like you do feel a lot better when you’re really good at something.

M.O. felt she was able to grow and become a better person by being around horses. She felt that horses made her who she is and that she would have been a different person if horses were not in her life. M.O. said:

I’m a little more confident, I know at school I’ve been doing better, I guess. But like I’m still not like that totally confident person. As soon as I get to the barn, it’s like my second home, like I am so comfortable. Like if I’m around her [the horse], I like to touch her so much, it’s like, I don’t know. I’m certainly a lot more confident with her, like riding, it makes a difference when you’re good... This is me, this is who I am. I think I would be a different person if horses weren’t in my life. I’d be a lot more uptight.

M.O. also felt she became more responsible by grooming her horse and taking good care of her horse’s needs.

Therapeutic Riding Group: D.H.

D.H. was a 17 year-old girl in the 12th grade in school. She was a B average student. She lived with her grandparents and her 19 year-old sister. Her mother had been in jail for several years. D.H. had two dogs and two cats that lived in her home. Her hobbies were singing and horseback riding. She had been involved at the therapeutic riding center for 7 years. She rode in the program and volunteered to help newer riders. She described riding at the therapeutic riding center as the best thing that ever happened

to her. She felt that part of her strong attraction to horses was due to her mother being around horses when she was pregnant, and her affinity for horses carried through to D.H. while she was “in the womb.”

D.H. described her horse as “really sweet.” She explained how he was non-aggressive: “He’ll go and lip at you and he won’t bite you ever, he just lips and it kinda tickles, it’s fun.”

D.H. felt that she and her horse were there for each other. She often came to the barn and let the horse come out and stand by her. She stated:

[I feel] just superbly happy, like I’ll be having the worst day and I’ll just walk into his stall and just kinda groom him a bit and just pet him. And I just feel completely better. I just am able to forget about everything that’s happened during the day, good or bad... and just... be there.

D.H. felt her horse was there for her as well. D.H. said, “The first time I rode him I was too short to reach his mane, so he bent his neck down and let me reach him... he’s just always been good to me.”

D.H. was connected with her horse and felt they were aware of each other’s emotions, particularly when each felt distressed. D.H. stated:

Honestly, some people kind of say its funny, but I think I have a better relationship with the horses here than I do with most people. Because with the horses, there’s just something about them, about each and every one, that I just understand. And I can tell when they’re not having a great day, and I can tell when they’re in a bad mood. And then the same thing with me, it seems like they

can just know when you need, just comfort, by your facial expressions, even though they may not understand it, you know, it seems like to me.

Having a relationship with horses helped D.H. deal with stress by forgetting her troubles. She felt depressed and was distressed that her mother was in jail. Coming to the barn and riding helped her forget her problems. D.H. stated:

...When I was kind of sad 'cause my mom had been in jail for a while, from a car. She ran a bunch of stoplights and stuff like that, so she went to jail for a few years. So that made me really, really, like depressed. So when I started coming here and riding, and it just let me forget about all that and let me release it all and just focus on being around my favorite animals and with really great people.

Being good at something, particularly riding and cantering, helped D.H. overcome her fears. She mastered the challenging task of cantering. She was good at something:

I never thought that I'd be riding right now because... like... I don't wanna ride in advanced classes... It's just amazing to realize that when I first started, I didn't really know a trot. Like I had tons of volunteers with me because of how scared I was, and I was just so afraid to fall off. Then I started to trot and they took away the lead rope, and I was like, "Oh, no." And then they tried to get me to canter, and I was like, oh, cantering, this is scary. And it was hard for me... It's hard when I look back and was like, "Whoa." Can't believe I actually cried before cantering the first time, 'cause they even had a leader and volunteers on both sides of the horses. And I just didn't wanna do it, I was just so scared. And now I'm cantering over jumps, and I'm just like whoa, how did I get from that to this? It's just amazing. ...'Cause like knowing that it took me a while, a few years to learn

to canter, to actually start to like it, and now that I'm cantering on my now completely and stuff like that. It's just like...I've done this, I can pretty much do anything I want to do now...I think about how I conquered my fears of cantering, for instance, and then I realize if I try to conquer my fears that I will eventually succeed.

D.H. described herself as being a better person from her relationship with horses.

Horses have helped her overcome her shyness. D.H. stated:

I used to be like a turtle and I would hide in my shell... and I was really really shy. And since I started coming here, I've definitely become really less shy. More than I ever thought I would be!

M.O. and D.H. serve as exemplars. Each of the six themes were evident in their narratives. Both demonstrated the relationship between girls and their horses. The stories exemplify the nature of the girl/horse relationships and reveal how girls benefit from these relationships. The two stories also highlight how the themes are manifested differently in each group.

Summary

The two groups of girls both valued their relationships with horses, often depicting them as important people. They described the nature of their relationships with horses and revealed how the horses benefited them. The relationships included *sharing physical affection, being there for each other, and being connected*. Their relationships with horses helped with *dealing with stress, being good at something, and being a better person*. These experiences were manifested in different ways in the two groups of girls.

The girls in the recreational riding group described relationships with their horses

that were profoundly loving and almost magical. The relationships added to the quality of their lives and contributed to their personal growth. The girls in the therapeutic riding groups described relationships with their horses that were remarkable because, unlike other relationships in their life, they were devoid of aggression and hurt. Whereas these girls focused on their weakness, their relationships with horses allowed them to see strengths in themselves that they were unaware of and to develop skills that once seemed unattainable.

The exemplar cases highlighted the six themes. The girls' experiences were presented using many of their own words. Together, these narratives showcase the essence of the girl-horse relationship.

Overall, the findings indicated that horse-girl relationships share common features, but that the girls in each setting differed in regards to the roles horses played in their lives. These differences are important to consider when developing equine-assisted mental health therapies.

CHAPTER V: DISCUSSION

This study used interpretive phenomenology to provide a description of the relationship between adolescent girls and horses. The key findings are summarized in this chapter. The findings are first discussed as they answer the research question: “What is the essence of the relationship between adolescent girls and horses?” Then, the findings that address the specific aims will be summarized. The specific aims of this study were to: (a) Describe the relationship that adolescent girls had with their horses in a recreational context; (b) Describe the relationship that adolescent girls had with horses in a therapeutic setting; and (c) Compare how the girls in the two settings described the relationships they have with horses. Then, how these results relate to prior research findings are discussed. Finally, the study limitations, suggestions for future research, and clinical implications are addressed.

Summary of Findings

The essence of the relationship between adolescent girls and their horses

(Research question)

All of the girls revealed that horses were important in the girls’ lives. They often described their horses as having personalities and human–like traits. The way they personified the horses seemed to often align with people that the girls’ desired in their

lives, such as loving mothers, princely lovers, or protective brothers.

When the participants described their relationships with their horses they identified the nature of the relationships and the benefits they experienced from the relationships. The relationships were characterized by the sharing of physical affection, a sense that the girls and their horses were there for each other, and a feeling that they and their horses were connected in a special way. The girls felt the relationships with their horses helped them deal with stress, provided them with an opportunity to be good at something, and afforded them an opportunity to be a better person. Because these relationship characters and benefits were common to the sample as a whole--regardless of context--these facets are considered to reveal the essence of the relationship between adolescent girls and horses.

While the group as a whole described their relationships with their horses with common characteristics and benefits, these facets of the relationships differed notably according to whether the girls engaged with horses in a recreational or therapeutic setting. Findings regarding the girls in the recreational group (Aim 1), the girls in the therapeutic group (Aim 2), and a comparison of the two groups are summarized below (Aim 3).

The relationship between adolescent girls and their horses in a recreational setting

(Aim 1)

The girls in the recreational setting described the physical affection shared between them and their horses as a tender and loving experience. It was important to the girls that the horses were there for them, and in turn, that they were there for their horses. The relationship consisted of the girls being lovingly attentive and the horses being accepting of the girls. Sharing a special way of knowing connected the horses and girls.

Being around the horses instilled a sense of peace and freedom. The girls felt good about excelling in their riding abilities and proud of their competitive accomplishments.

The relationship between adolescent girls and their horses in a therapeutic setting

(Aim 2)

The girls in the therapeutic setting described the physical affection shared between them and their horses as tending to the horses needs and having the horses, in turn, be nice to them. The girls sought to be close with the horses and felt that the horses were tolerant and accepting of them. The girls described having a connection with their horses and being able to recognize when the other was troubled or upset. Being around the horses helped the girls get away from their stressors and forget about their troubles. The horses helped the girls feel good at being able to master a challenging task and overcome their personal deficits.

The differences between how adolescent girls in a recreational setting and adolescent girls in a therapeutic setting describe their relationships with horses

(Aim 3)

The third aim of the study was to compare and contrast how the two groups of girls describe their relationships with horses. Both groups related to their horses with affection and a sense of presence and connection, and felt horses helped them relax, master a skill, and become better people. Yet these facets of the relationships were manifested in specific ways in each group. The recreational groups described a relationship with their horses as marked by love, attentiveness, and intimacy. In some ways, the relationships were reminiscent of human relationships marked by unconditional positive regard. On the other hand, the therapeutic group described their relationships

with their horses as marked by duty, tolerance, and attunement to one another's distress. These relationships were reminiscent of relationships in which each person tentatively seeks to meet the needs of the other.

Similarly, the benefits derived from relationships with horses were specific to each group. The girls in the recreational group described the benefits in terms of enrichment-- as they felt more relaxed and more skillful. That is, horses improved the quality of their lives and allowed them to build upon an already secure sense of self. The girls in the therapeutic group, on the other hand, viewed the benefits as overcoming their deficits. The horses allowed them to escape their troubles temporarily and overcome some of their flaws.

Findings Related to the Extant Literature

The findings of the current study contribute to the body of literature that is forming about human-horse relationships. Although no studies were found in the literature which specifically explored the relationships between adolescent girls and horses, several qualitative studies have explored the relationships between women who had emotional difficulties and horses (Burgon, 2003; Meinersmann, et al., 2008; Yorke et al., 2008). The findings from this current study resonate with the findings from this literature.

The findings of the current study, for example, are quite similar to the findings by Yorke et al. (2008). These researchers found that women with emotional problems revealed that their relationships with horses provided acceptance, nurturance, intimacy, physical affection, collaboration and a sense of mastery. Many of these benefits were noted in the adolescent sample of the current study. In fact, an adolescent girl participant

in the current study and a woman from the York et al. (2008) study provided an identical quote: “I know him (the horse) and he (the horse) knows me.” Similar to the girls in the current study, the women studied by York and colleagues felt their horses helped them get away from negative things in their lives, gain confidence to try new things, and to take on challenges they never thought they could do.

Similarly, the findings of the current study are consistent with several findings by Burgon (2003) in a study examining the psychotherapeutic effects of a riding therapy program on women with mental health problems. Burgon (2003) found women benefited from the equine-assisted therapy program in ways that were similar to the current therapeutic group. The women felt their horses were nonjudgmental and dependable, could sense when something was wrong and the women needed to talk, and provided an opportunity for women to try new things and to take on challenges they never thought they could do.

The findings of the current study also resonate with the findings by Meinersmann, Bradberry, and Roberts (2008). These researchers examined the effectiveness of equine-assisted therapy in the treatment of women who have experienced abuse. Similar to the findings of the current study, the abused women believed that horses knew things about them, were able to sense if something was wrong, and seemed to know when the women needed to talk. In addition, the women gained self-confidence and a sense of self-control.

The findings of the current study extend the existing research in several ways. Researchers have primarily explored relationships with horses in populations with emotional issues or mental illnesses. This study is one of the only studies that have included adolescent girls who ride recreationally. This group helped explicate the essence

of the relationships between adolescent girls and horses and to help distinguish characteristics that differentiate girls who enjoy horses naturally and those who engage with horses in therapeutic settings.

In addition, this study extends the literature by taking a more in-depth view into the various facets of the nature of the relationship and the benefits achieved. For example, a more comprehensive understanding of the physical affection aspect of the relationships has been identified in this current study, especially in the therapeutic group. The duty that these girls felt in providing care and the sense that they had that the horses would not hurt them has not been described in the literature. When juxtaposed against the recreational group's description of physical affection as being tender and loving, this finding provides a greater sense of the meaning the horses play in a therapeutic context.

The current findings emphasize the reciprocal nature of the relationship more than have prior studies. For example, previous studies about women and horses identified that women felt that horses were always there for them, but in this study the girls also stressed the importance of being there for their horses.

The finding of the current study that adolescent girls felt their relationships with horses helped them become a better person was not addressed in the previous studies. This may be due to the fact that adolescent girls are just developing into adults, where the prior studies involved adults who had already gone through the adolescent developmental stage. This finding may be specific to adolescent girls and shed further light on why equine-assisted therapy may be especially effective with this age group.

While many findings of the current study therefore are consistent with prior research, this study describes the relationships between adolescent girls and their horses

in more depth. The findings of this study provide a foundation for future research that evaluates the effectiveness of equine-assisted therapies. In addition, the two exemplars provide examples of how the relationship between adolescent girls and their horses can be viewed in the context of their life situations.

Limitations of the Study

There are several limitations to this study. Although a rich description of the relationship of adolescent girls and their horses was obtained, the two groups are not representative of all relationships between adolescent girls and horses. Because the sample was a convenient purposeful sample and all participants were volunteers, the experiences of the girls who choose not to participate were not represented. These girls may have different relationships with horses. For example, girls in the recreational settings who had more causal relationships with horses may not have been motivated to participate to espouse the virtues of their horses. Similarly, girls in the therapeutic group who did not feel they benefitted from their relationship with horses may have not volunteered for fear of saying negative things about their therapy program. Thus, in both groups, the voices of girls who were less enthusiastic about horses may not be included. In addition, the sample included little ethnic, economic, and developmental-stage diversity. The homogeneity and size of the sample did not allow exploration of how such demographic differences might influence the findings.

Another limitation of this study was that all of the participants involved in equine-assisted therapy were recruited from one therapeutic riding center. There are many different types of equine-assisted therapeutic programs offering a wealth of different services. Therefore, findings related to this group might be specific to the girls involved

in this type of program. For example, in equine-assisted therapy programs that do not include grooming, physical affection may not be a salient aspect of the girls' relationships to horses. Similarly, girls in equine-assisted therapy programs that do not include riding horses as part of their program may not experience the same sense of managing a challenging task. Because the therapeutic riding center that served as the setting for this study provided a breadth of activities, it is possible that the benefits described by the girls were more comprehensive than would be found in a program with fewer types of activities.

In addition, only one interview was obtained from each participant in the study. This might have led the participants to be less trusting of the interviewer and limit their opportunity to describe more fully their experiences with horses, including perhaps less favorable aspects of their encounters with horses.

Future Research

Based on the findings of this study, several areas of future research are recommended. Replicating this study with participants from a variety of therapeutic riding centers would provide a greater overview of the relationships between adolescent girls and horses. Equine-assisted therapy programs are so varied in their methods and activities that a sample including participants from several programs would be beneficial to determine the influence of program characteristics on the girls' experiences.

It would also be beneficial to conduct a study similar to this one with adolescent boys. Equine-assisted therapies are used with adolescent boy's as well as girl's, and yet research has shown that boys and girls relationships with horses differ (Brown, 1984; Daly & Morton, 2006; Jones, 1983; Kidd, Kelly, & Kidd, 1984; Klopfer, Klopfer, &

Etemad, 1984; Maurer, Delfour, Wolff, & Adrien, 2010). Therefore, gaining an understanding of the relationship between adolescent boys and horses in a therapeutic setting would guide equine-assisted therapy programs working with both genders of adolescents.

Longitudinal qualitative studies of adolescent girls participating in equine-assisted therapies could provide information about how the girls' relationships with horses change over time. Interviews with adolescents closely following each equine-therapy session would provide contemporaneous data that would allow a more in-depth understanding of therapeutic change. Participants may assign different meanings of their relationships with horses during different stages of the relationship's development.

Based on the findings of this study and further qualitative work, an assessment guide could be developed to aid clinicians in their work with adolescent girls involved with horses. An assessment guide consists of open-ended questions based on qualitatively derived findings. The guide is carefully developed to promote reflection, critical thinking, and an understanding of the participants' experiences (Morse, Hutchinson, & Penrod, 1998). An assessment guide based on the findings of this study could serve as a basis for implementing the qualitative findings into clinical practice interventions (Morse et al., 1998). For example, the guide might include questions that encourage participants to discuss why it is important that horses are non-aggressive and tolerant of them, what trouble do the horses help them forget, and in what ways do they wish to become a better person.

Clinical Implications

A number of clinical implications may be drawn from this study. The findings

may guide therapeutic interactions with adolescent girls who have a horse or who ride recreationally. Counselors may have a better understanding of the importance and meaning of the relationships that adolescent girls have with their horses. This understanding can lead to important topics of discussion with adolescent girl clients, and the themes identified in this study can guide such discussions. For example, a counselor may find that his/her adolescent girl client has a horse. Having an understanding of the potential meaning of the client's relationship with her horse could facilitate the counselor in engaging in a more in-depth discussion with the girl. The discussion about the relationship of the girl and her horse could segue into issues of the girl's everyday life.

The findings from this study may also inform the work of therapists in equine-assisted therapy programs. Although there is little consistency in the methods used for different equine-assisted therapies, the relationship between clients and the horses is valued in all programs. The important aspects of the relationships between the adolescent girls and horses, and the benefits that girls believe they gain from their relationships, may be incorporated into different aspects of the equine-assisted therapeutic programs. For example, these findings suggest that specific activities (e.g. grooming) have specific benefits (e.g. physical affection) and thus have implications for tailoring programs based on the unique needs of adolescents.

Because the findings suggest that the benefits accrued by the girls in the therapeutic program were related to their life struggles and what seemed to be missing from their lives, the results suggest that all equine-assisted therapy programs should include a follow up session to process the participants' experiences with horses and relate these experiences to their life struggles. These experiences can be used as a metaphor or

learning examples that can be applicable for everyday real life experiences.

Experiencing a relationship with horses may provide an adolescent girl with an opportunity for nurturance, intimacy, physical affection, collaboration, and a sense of mastery. The adolescent girls' descriptions of their relationships with horses provide insight into considerations that are important in the girls' day-to-day lives, not just when they are with horses. Based on these findings, professionals may want to consider incorporating work with horses into their therapy practices or referring their clients to equine-assisted therapy practices.

Conclusion

This phenomenological study, which explored the essence of the relationship between adolescent girls and horses, provides some important findings. These findings are helpful in gaining an understand how this relationship with horses impacts the lives of adolescent girls, and may be helpful towards guiding therapy programs based on this relationship. In light of the needs for more effective interventions to help troubled adolescent girls, equine-assisted therapy offers great potential to be recognized as an effective therapeutic option. Throughout the literature, the need for more research in this area is emphasized. This study, along with some of other preliminary studies, offers promising information into understanding the relationships between humans and horses. This study offers a foundation for further work exploring the phenomenon of the relationship between adolescent girls and horses as well as other human-horse relationships.

REFERENCES

- Adelman, H. S., Taylor, L., Bradley, B. & Lewis, K. D. (1997). Mental health in schools: Expanded opportunities for school nurses. *Journal of School Nurse, 13*(3), 6-11.
- Aime, A., Craig, W.M., Pepler, D., Jiang, D., & Connolly, J. (2008). Developmental pathways of eating problems in adolescents. *International Journal of Eating Disorders, 41*, 686-696.
- Ainsworth, M. D. (1989). Attachments beyond infancy. *American Psychologist, 44*, 709-716.
- All, A. C., Loving, G. L., & Crane, L. L. (1999). Animals, horseback riding, and implications for rehabilitation therapy. *Journal of Rehabilitation, 65*, 49-57.
- Allen, K. (1999). *The healthy pleasure of their company: Companion animals and human health*. School of Medicine, State University of New York at Buffalo. Retrieved April 30, 2011 from Delta Society @ www.deltasociety.org/dsz006.htm.
- Allen, K., & Blascovich J. (1991). Presence of human friends and pet dogs as moderators of autonomic stress in women. *Journal of Personality and Social Psychology, 61*, 582-589.
- Allen K., Blascovich J., & Mendes, W.B. (2002) Cardiovascular reactivity and the presence of pets, friends, and spouses: The truth about cats and dogs. *Psychosomatic Medicine, 64*(5), 727-739.
- Allen, K. M., Blascovich, J., Tomaka, J., & Kelsey, R. M. (1991). Presence of human friends and pet dogs as moderators of autonomic responses to stress in women. *Journal of Personality and Social Psychology, 61*, 582-589.

American Academy of Child and Adolescent Psychiatry (2008). *Pets and children*.

Retrieved April 30, 2011, from <http://aacap.org>.

American Horse Council (2005). *Horse industry statistics*. Retrieved April 30, 2011,

from www.horsecouncil.org/ahcstats.html.

Anderson, K.L., & Olson, M.R. (2006). The value of a canine in a classroom of children with severe emotional disorders. *Anthrozoos, 19*(1), 35-49.

Anderson, W., Reid, C., & Jennings, G. (1992). Pet ownership and risk factors for cardiovascular disease. *The Medical Journal of Australia, 157*, 298-301.

Antonioli, C., & Reveley, M.A., (2005). Randomized controlled trial of animal facilitated therapy with dolphins in the treatment of depression. *British Medical Journal, 331*, 1231-1234.

Astrup, C. W., Gantt, W. H., & J. H. Stephens (1979). Differential effects of person in the dog and in the human. *The Pavlovian Journal of Biological Science: Official Journal of the Pavlovian, 14*, 104-107.

Banks, M.R., & Banks, W.A. (2002). The effects of animal-assisted therapy on loneliness in an elderly population in long-term care facilities. *Journal of Gerontology: Biological Sciences, 7*, 428-432.

Banks, M., & Banks, W. (2005). The effects of group and individual animal-assisted therapy on loneliness in residents of long-term care facilities. *Journal of Gerontology, 57*(7), 28-32.

Barak, Y., Savorai, O., Mavashev, S., & Beni, A. (2001). Animal-assisted therapy for elderly schizophrenic patients: A one-year controlled trial. *American Journal of Geriatric Psychiatry, 9*, 439-442.

- Barba, B.E. (1991). *The human companion animal relationship: Philosophical inquiry*. PhD Dissertation, School of Education, Health, Nursing, and Arts Professions. New York University.
- Barba, B. (1995). The positive influence of animals: Animal-assisted therapy in acute care. *Clinical Nurse Specialist*, 9(4), 199-202.
- Barker, S., & Barker, R. (1988). The human-canine bond: Closer than family ties. *Journal of Mental Health Counseling*, 10, 46-56.
- Barker, S., & Dawson, K. (1998). The effects of animal-assisted therapy on anxiety rating of hospitalized psychiatric patients. *Psychiatric Services*, 49, 797-801.
- Barker, S. B., Knisely, J. S., McCain, N. L., Schubert, C. M., & Pandurangi, A. K. (2010). Exploratory study of stress-buffering response patterns from interaction with a therapy dog. *Anthrozoos*, 23(1), 79-91.
- Barker, S. B., Pandurangi, A. K., & Best, A. M. (2003). Effects of animal-assisted therapy on patients' anxiety, fear, and depression before ECT. *Journal of ECT*, 19(1), 38-44.
- Barker, S. B., Rogers, C., Turner, J., Karpf, & Suthers-McCabe, M. (2003). Benefits of interacting with companion animals: A bibliography of articles published in refereed journals during the past 5 years. *American Behavioral Scientist*, 47(1), 94-99.
- Barker, S.B., & Wolen, A.R. (2008). The benefits of human-companion animal interaction: A review. *Journal of Veterinary Medical Education*, 35, 487-495.
- Bates, A. (2002). Of patients and horses: Equine-facilitated psychotherapy. *Journal of Psychosocial Nursing*, 40(5), 17-19.

- Batson, K., McCabe, B.W., Baun, M.M. & Wilson, C.A.(1998). The effect of a therapy dog on socialization and physiological indicators of stress in persons diagnosed with Alzheimer's disease. In C.C. Wilson & D.C. Turner (Eds.), *Companion animals in health* (pp. 203-215). Thousand Oaks, CA: Sage Publications.
- Baun, M., Bergstrom, N., Langston, N., & Thoma, L. (1984). Physiological effects of human/companion animal bonding. *Nursing Research*, 33(3), 126-129.
- Baun, M., M., Oetting, K., & Bergstrom, N. (1991). Health benefits of companion animals in relation to the physiologic indices of relaxation. *Holistic Nurse*, 5(2), 16-23.
- Beck, A. M. (2005). Review of pets and our mental health: The why, the what, and the how. *Anthrozoos*, 18(4), 441–443.
- Beck, A. M., & Katcher, A. H. (1984). A new look at pet-facilitated therapy. *Journal of the American Veterinary Medical Association*, 184, 414-421.
- Beck, A. M., & Katcher, A. H. (2003). Future directions in human-animal bond research. *American Behavioral Scientist*, 47, 70-93.
- Beck, L., & Madresh, E. A. (2008). Romantic partners and four-legged friends: An extension of attachment theory to relationships with pets. *Anthrozoos*, 21(1), 43-56.
- Benner, P. (1994). *Interpretive phenomenology: Embodiment, caring, and ethics in health and illness*. Thousand Oaks, CA: Sage.
- Bernstein, P. L., Friedmann, E. E., & Malaspina, A. A. (2000). Animal-assisted therapy enhances resident social interaction and initiation in long-term care facilities. *Anthrozoos*, 13(4), 213-224.

- Birke, L., & Brandt, K. (2009). Mutual corporeality: Gender and human/horse relationships. *Women 's Studies International Forum*, 32(3), 189-197.
- Bizub, A. L., Joy, A., & Davidson, L. (2003). "It's like being in another world": Demonstrating the benefits of therapeutic horseback riding for individuals with psychiatric disability. *Psychiatric Rehabilitation Journal*, 26 (4), 377-384.
- Bodsworth, W., & Coleman, G. J. (2001). Child-companion animal attachment bonds in single and two-parent families. *Anthrozoos*, 14(4), 216-223.
- Bowlby, J. (1969). *Attachment and loss: Vol 1. Attachment*. New York: Basic Books.
- Bowlby, J. (1988). *A secure base*. New York: Basic Books.
- Brandt, K. (2004). A language of their own: An interactionist approach to human-horse communication. *Society and Animals*, 12(4), 299-316.
- Braun C., Stangler, T., Narveson J., & Pettingell, S. (2009). Animal-assisted therapy as pain relief intervention for children. *Complementary Therapies in Clinical Practice*, 15(2), 105-109.
- Brodie, S.J., & Biley, F.C. (1999). An exploration of the potential benefits of pet-facilitated therapy. *Clinical Nursing*, 8 (4), 962-1067.
- Brown, D. (1984). Personality and gender influences on human relationships with horses and dogs. In A. Hart, & Hart (Eds.), *The pet connection* (pp 216-223). Minneapolis, MN: Center to Study Human-Animal Relationships and Environments.
- Brown, S. (2004). The human-animal bond and self-psychology: Toward a new understanding. *Society & Animals*, 12(1), 67-86.

- Brown, L., & Gilligan, C. (1992). *Meeting at the crossroads*. Cambridge, MA: Harvard University Press.
- Brudvig, T. J. (1988). Therapeutic horseback riding on a military base: One PT's experience. *Clinical Management*, 8(3), 30-32.
- Burgon, H. (2003). Case studies of adults receiving horse-riding therapy. *Anthrozoos*, 16(3), 263-276.
- Cangelosi, P., & Sorrell, J. (2010). Walking for therapy with man's best friend. *Journal of Psychosocial Nursing And Mental Health Services*, 48(3), 19-22.
- Centers for Disease Control and Prevention (2009). Youth risk behavior surveillance system. *Surveillance Summaries*, 49, 1-94.
- Cobb, S. (1976) Social support as a moderator of life stress. *Psychosomatic Medicine*, 38(5), 300-314.
- Cohen, S. P. (2002). Can pets function as family members? *Western Journal of Nursing Research*, 24(6), 621-638.
- Cohen, M., Kahn, & Steeves, R. (2000). *Hermeneutic phenomenological research: A practical guide for nurse researchers*. Thousand Oaks, CA: Sage.
- Cole, K. M., & Gawlinski, A. (2000). Animal-assisted therapy: The human animal bond. *Aacn Clinical Issues: Advanced Practice in Acute and Critical Care*, 11(1) 139-149.
- Cole, K., Gawlinski, A., Steers, N., & Kotlerman, J. (2007). Animal-assisted therapy in patients hospitalized with heart failure. *American Journal of Critical Care*, 16(6), 575-586.

- Collis, G. M., & McNicholas, J. (1998). A theoretical basis for health benefits of pet ownership. In C. C. Wilson, & D. C. Turner (Eds.), *Companion animals in human health* (pp. 105-122). London: Sage.
- Colombo, G., Dello Buono, M., Smania, K., Raviola, R., & De Leo, D. (2006). Pet therapy and institutionalized elderly: A study on 144 cognitively unimpaired subjects. *Archives of Gerontology & Geriatrics, 42*, 207-216.
- Commonwealth Fund. (2010). *The Commonwealth Fund Survey of the Health of Adolescent Girls*. Retrieved April 30, 2011, from <http://www.commonwealthfund.org>.
- Crawford, E. K., Worsham, N. L., & Swinehart, E. R. (2006). Benefits derived from companion animals and the use of the term "attachment". *Anthrozoos, 19*(2), 98-112.
- Daly, B. & Morton, L. L. (2006). An investigation of human--animal interactions and empathy as related to pet preference, ownership, attachment, and attitudes in children. *Anthrozoos, 19*(2), 113-127.
- Delta Society (2005). *About animal assisted activity and Animal assisted therapy*. Retrieved April 30, 2011 from, <http://www.deltasociety.org/AnimalsAAAAbout.htm#differences>
- Dembicki, D., & Anderson, J. (1996). Pet ownership may be a factor in improved health of the elderly. *Journal of Nutrition for the Elderly, 15*(3), 15-31.
- Diekelmann, N., & Allen, D. A. (1989) Hermeneutic analysis of the NLN criteria for the appraisal of baccalaureate programs. In N. Diekelmann, D. Allen, & C. Tanner

(Eds.), *The NLN Criteria Appraisal of Baccalaureate Programs: A Critical Hermeneutic Analysis*. New York: National League for Nursing.

Donovan, J.E. (1996). Gender differences in alcohol involvement in children and adolescents: National Institute on Alcohol Abuse and Alcoholism, *Research Monograph*. 32, Bethesda, MD.

EAGALA 2003) *What is EAGALA?* Retrieved April 30, 2011, from <http://www.eagala.org/informationContent.htm>

Edwards, N., & Beck, A. (2002). The influence of animal-assisted therapy on nutritional intake in individuals with Alzheimer's disease. *Western Journal of Nursing Research*, 24(5), 697-712.

Enders-Slegers, M. J. (2000). The meaning of companion animals: Qualitative analysis of the life histories of elderly cat and dog owners. In A. L. Podberscek, E. S. Paul, & J. A. Serpell (Eds.), *Companion animals and us* (pp. 237–256). Cambridge, England: Cambridge University Press.

Equine Facilitated Mental Health Association (2002). *What is equine facilitated mental health association?* Retrieved April 30, 2011, from <http://www.narha.org/SecEFMHA/WhatIsEFMHA.asp>.

Erikson, J. (2005). Horses help heal cancer patients & their loved ones. *Oncology Times*, 27(16), 36-37.

Ewing, C. A., MacDonald, P. M., Taylor, M., & Bowers, M. J. (2007). Equine-facilitated learning for youths with severe emotional disorders: A quantitative and qualitative Study. *Child and Youth Care Forum*, 36(1), 59 - 72.

- Fine, A. H. (2000). *Handbook on animal-assisted therapy, theoretical foundations and guidelines for practice*. London, UK: Academic Press.
- Fine, A. H. (2010). *Handbook on animal-assisted therapy, theoretical foundations and guidelines for practice* (3rd ed.). London, UK: Academic Press.
- Fine, A. H., & Eisen, C. J. (2008). Afternoons with puppy: Inspirations from a therapist and his animals. West Lafayette IN: *Purdue University Press*.
- Fitzpatrick, J. C. (1998). Hippotherapy and therapeutic riding. In C. Wilson, & D. Turner (Eds.), *Companion animals in human health* (pp. 41-48). Thousand Oaks, CA: Sage.
- Folse, E. B., Minder, C. C., Aycock, M. J., & Santana, R. T. (1994). Animal-assisted therapy and depression in adult college students. *Anthozoos*, 7, 188-194.
- Francis, G. M. (1991). "Here come the puppies:" The power of the human-animal bond. *Holistic Nursing Practice*, 5(20), 38-41.
- Francis, G., Turner, J., & Johnson, S. (1985). Domestic animal visitation as therapy with adult home residents. *International Journal of Nursing Studies*, 22(3), 201-206.
- Friedmann, E. (2000). The animal-human bond: Health and wellness. In A. H. Fine (Ed.), *In Animal Assisted Therapy* (pp. 41-58). San Diego, CA: Academic Press.
- Friedmann, E., Katcher, A., Lynch, J., & Thomas, S. (1980). Animal companions and one-year survival of patients after discharge from a coronary care unit. *Public Health Reports*, 95, 307-312.
- Friedmann, E., Katcher, A., Thomas, S., Lynch, J., & Messent, P. (1983). Social interaction and blood pressure: Influence of animal companions. *Journal of Nervous and Mental Disease*, 171(8), 461-465.

- Friedmann E., & Thomas, S.A. (1995). Pet ownership, social support, and one-year survival after acute myocardial infarction in the Cardiac Arrhythmia Suppression Trial (CAST). *American Journal of Cardiology*, *76*(17), 1213-1217.
- Friesen, L. L. (2010). Exploring animal-assisted programs with children in school and therapeutic contexts. *Early Childhood Education Journal*, *37*(4), 261-267.
- Fritz, C.L., Farver, T.B., Kass, P. H., & Hart, L.A. (1995). Association with companion animals and the expression of noncognitive symptoms in Alzheimer's patients. *Journal of Nervous and Mental Disease*, *183*(7), 459-463.
- Froeschle, J. (2009). Empowering abused women through equine assisted career therapy. *Journal of Creativity in Mental Health*. *4* (2), 181-190.
- Garrity, T. F., & Stallones, L. (1998). Effects of pet contact on human well-being: Review of recent research. In C. C. Wilson, & D.C. Turner (Eds.), *Companion Animals in Human Health* (pp. 3-22). Thousand Oaks, CA: Sage.
- Garrity, T. F., Stallones, L., Marx, M. B., & Johnson, T.P. (1989). Pet ownership and attachment as supportive factors in the health of the elderly. *Anthrozoos*. *3*, 35-44.
- Grossberg, J. M., Alf, E. F., & Vormbrock, J. K., (1988). Does pet dog presence reduce human cardiovascular responses to stress? *Anthrozoos*. 38-44.
- Hanselman, J. (2001). Coping skills interventions with adolescents in anger management using animals in therapy. *Journal of Child & Adolescent Group Therapy*, *11*(4), 159-195.
- Hansen, K. M., Messinger, C. J., Baun, M. M., & Megal, M. (1999). Companion animals alleviating distress in children. *Anthrozoos*. *12*(3), 142-148.

- Harbolt, T., & Ward, T. H. (2001). Teaming incarcerated youth with shelter dogs for a second chance. *Society & Animals*, 9(2), 177-182.
- Haylock, P. J., & Cantril, C. A. (2006). Healing With horses: Fostering recovery from cancer with horses as therapists. *Explore: The Journal of Science and Healing*, 2(3), 264-268.
- Headey, B. (1999). Health benefits and health costs savings due to pets: Preliminary estimates from an Australian national survey. *Social Indicators Research*, 47, 233-243.
- Headey, B., Grabka, M., Kelley, J., Reddy, P., & Tseng, Y. (2002). Pet ownership is good for your health and saves public expenditure too: Australian and German longitudinal evidence. *Australian Social Monitor*, 4, 93-99.
- Healthy People 2020*, U.S. Department of Health and Human Services. Retrieved April 30, 2011, from <http://www.healthypeople.gov/2020/default.aspx>.
- Holcomb, R., Jendro, C., Weber, B., & Nahan, U. (1997). Use of an aviary to relieve depression in elderly males. *Anthrozoos*, 10, 32-36.
- Hunt, S. J., Hart, L.A., & Gomulkiewicz, R. (1992). The role of small animals in social interaction between strangers. *Journal of Social Psychology*, 133, 245-256.
- Jessen, J., Cardiello, F., & Baun, M. M. (1996). Avian companionship in alleviation of depression, loneliness and low morale of older adults in skilled rehabilitation units. *Psychological Reports*, 78, 339-348.
- Johnson, M. E. (2000). Heidegger and meaning: Implications for phenomenological research. *Nursing Philosophy*, 1(2), 134-146.
- Johnson, R., & Meadows, R. (2002). Older Latinos, pets, and health. *Western*

Journal of Nursing Research, 26 (6), 609-620.

- Johnson, R., Meadows, R., Haubner, J., & Sevedge, K. (2008). Animal-assisted activity among patients with cancer: Effects on mood, fatigue, self-perceived health, and sense of coherence. *Oncology Nursing Forum*, 35(2), 225-232.
- Jones, B. (1983). Just crazy about horses: The fact behind the fiction. In A.H. Katcher & A.M. Beck (Eds.), *Perspectives on our lives with companion animals* (pp 87-111). PA: University of Pennsylvania Press.
- Kaiser Family Foundation (2002). Substance use and risky sexual behavior: Attitudes and practices among adolescents and young adults. Retrieved April 30, 2011 from, <http://www.kff.org/youthhivstds/upload/KFF-CASASurveySnapshot.pdf>.
- Kaiser, L., Smith, K. A., Heleski, C., & Spence, L. (2006). Effects of a therapeutic riding program on at-risk and special education children. *Journal of the American Veterinary Medical Association*, 228 (1), 46-52.
- Kale, M. (1992). At risk: Working with animals to create a new self- image. *Interactions*, 10(4), 6-9
- Kaminski, M., Pellino, T., & Wish, J. (2002). Play and pets: The physical and emotional impact of child-life and pet therapy on hospitalized children. *Children's Health Care*, 31(4), 321-335.
- Kanamori, M., Suzuki, M., Yamamoto, K., Kanda, M., Matsui, Y., Kojima, E., Fukawa, H., Sugita, T., & Oshiro, H. (2001). Day care program and evaluation of animal-assisted therapy (AAT) for the elderly with senile dementia. *American Journal of Alzheimer's Disease and Other Dementias*, 16(4), 234-239.

- Karol J. (2007). Applying a traditional individual psychotherapy model to equine-facilitated psychotherapy (EFP): theory and method. *Clinical Child Psychology & Psychiatry, 12*(1), 77-90.
- Katcher, A.H. (1981). Interactions between people and their pets: Form and function. In B. Fogle (Eds.), *Interrelationships between people and pets* (pp. 41-67). Springfield, Illinois: Charles C.Thomas.
- Katcher, A. H. (2000). The future of education and research on the animal-human bond and animal assisted therapy. In A. H. Fine (Eds.), *The handbook on animal assisted therapy: Theoretical foundations and guidelines for practice* (pp. 461-473). San Diego, CA: Academic Press.
- Katcher, A. H., Friedmann, E., Beck, A. M., & Lynch, J. J. (1983). Looking, talking and blood pressure: The physiological consequences of interaction with the living environment. In A. H. Katcher & A. M. Beck (Eds.), *New perspectives on our lives with companion animals* (pp. 351-359). Philadelphia: University of Pennsylvania Press.
- Katcher, A. H., Segal, H., & Beck, A. M. (1984). Comparison of contemplation and hypnosis for the reduction of anxiety and discomfort during dental surgery. *American Journal of Clinical Hypnosis, 27*, 14-21.
- Katcher, A., & Wilkins, G. (1993). Dialogue with animals: Its nature and culture. In S. R. Kellert, & E. O. Wilson (Eds.), *The biophilia hypothesis* (pp. 42-69). Washington DC: Island Press.

- Katsinas, R. P. (2000). Use and implications of a canine companion in a therapeutic day program for nursing home residents with dementia. *Adaptation and Aging, 25*(1), 13-30.
- Kellert, S. R. (1993). The biological basis for human values of nature. In S. R. Kellert, & E. O. Wilson (Eds.), *The biophilia hypothesis* (pp. 42-69). Washington, DC: Island Press.
- Kersten, G. & Thomas, L. (1997). Straight from the horse's mouth: The truth about equine-assisted therapy. *The Counselor, 4*(1), 23-25.
- Kidd, A. H., Kelley, H.T., & Kidd, R.M. (1984). Personality characteristics of horse, turtle, snake, and bird owners. In Anderson, Hart, & Hart (Eds.), *The pet connection* (pp.200-205). Minneapolis, MN: Center to Study Human-Animal Relationships and Environments.
- Kidd A. H., & Kidd, A. M. (1985). Children's attitudes towards their pets. *Psychological Reports, 57*, 15-31.
- Kidd, A. H., & Kidd, R. M. (1999). Benefits, problems, and characteristics of home aquarium owners. *Psychological Reports, 84*, 998-1004.
- Klontz, B., Bivens, A., Leinart, D., & Klontz, T. (2007). The effectiveness of equine-assisted experiential therapy: Results of an open clinical trial. *Society and Animals, 15*(3), 257-267.
- Klopper, P.H., Klopper, M.S., & Etemad, J. (1984). Girls and horses: A sex difference in attachments. In R. Anderson, B. Hart, & L. Hart (Eds.), *The pet connection*. (pp. 38-34). Minneapolis, Minn: Center to Study Human-Animal Relationships and Environments.

- Kohanov, L. (2001). *The tao of equus*. Novato, CA: New World Library.
- Kovács, Z., Bulucz, J., Kis, R., & Simon, L. (2006). An exploratory study of the effect of animal-assisted therapy on nonverbal communication in three schizophrenic patients. *Anthrozoös, 19*, 353-364.
- Kovacs, Z., Kis, R., Rozsa, S., & Rozsa, L. (2004). Animal-assisted therapy for middle-aged schizophrenic patients living in a social institution: A pilot study. *Clinical Rehabilitation, 18*, 483-486.
- Kruger, K.A., Trachtenberg, S.W., & Serpell, J.A. (2004). *Can animals help humans heal? Animal-assisted interventions in adolescent mental health*. Philadelphia, PA: Center for the Interaction of Animals and Society.
- Kurdek, L. A. (2009). Pet dogs as attachment figures for adult owners. *Journal of Family Psychology, 23*(4), 439-446.
- Lapp, C., A. (1991). Nursing students and the elderly: Enhancing intergenerational communication through human-animal interaction. *Holistic Nursing Practice, 5*(2), 72-79.
- Laun, (2003). Benefits of pet therapy in dementia. *Home Healthcare Nurse, 21* (1), 49-52.
- Lawrence, E.A. (1985). *Hoofbeats and society: Studies of human-horse interaction*. Bloomington: Indian University Press.
- Leonard, A. (1989). Heideggerian phenomenological perspective on the concept of the person, *Advances in Nursing Science, 11*(4), 40-55.
- Levinson, B. (1997). *Pet-oriented child psychotherapy*. Springfield, IL: Charles C. Thomas.

- Levinson, B. M. (1962). The dog as co-therapist. *Mental Hygiene, 46*, 59-65.
- Levinson, B. M. (1970). Pets, child development, and mental illness. *American Veterinary Medical Association Journal, 11*, 1759-1766.
- Levinson, B. (1997). *Pet-oriented child psychotherapy*. Springfield, IL: Charles C. Thomas Publishers.
- Limond, J. A., Bradshaw, J. W. S., & Cormack, K. F. M. (1997). Behavior of children with learning disabilities interacting with a therapy dog. *Anthrozoos, 10*(2/3) 84-89.
- Lutwack-Bloom, P., Wijewickrama, R., & Smith, B. (2005). Effects of pets versus people visits with nursing home residents. *Journal of Gerontological Social Work, 44*(3/4), 137-159.
- Lynch, J. J. (1977). *The broken heart: The medical consequences of loneliness*. New York: Basic Books.
- Lynch, J. J. (2000). *A cry unheard: New insights into the medical consequences of loneliness*. Baltimore, MD: Bancroft.
- Mallon, G. (1992). Utilization of animals as therapeutic adjuncts with children and youth: A review of literature. *Child Youth Care Forum, 21*(1), 53-56.
- Martin, F., & Farnum, J. (2002). Animal-assisted therapy for children with pervasive developmental disorders. *Western Journal of Nursing Research, 24*(6), 657-670.
- Marr, C.A., French, L., Thompson, D., Drum, L., Greening, G., Mormon, J., Henderson, I., & Hughes, C. (2000). Animal-assisted therapy in psychiatric rehabilitation, *Anthrozoos, 13*(1), 43-47.

- Masini, A. (2010). Equine-assisted psychotherapy in clinical practice. *Journal of Psychosocial Nursing and Mental Health Services, 48*(10), 30-34.
- Maurer, M., Delfour, F., Wolff, M., & Adrien, J. (2010). Dogs, cats and horses: Their different representations in the minds of typical and clinical populations of children. *Anthrozoos, 23*(4), 383-395.
- McCauley, E., Pavlidis, K., & Kendall, K. (1999). *The depressed child and adolescent: Developmental and clinical perspectives*. Cambridge, UK: Cambridge University Press.
- McCormick, A.R., & McCormick, M.D. (1997). *Horse sense and the human heart*. Deerfield Beach, FL: Health Communications Inc.
- McDaniel, I. (1998). What exactly is equine facilitated mental health & equine facilitated learning? *NARHA Strides, 4*(1) 23-25.
- McNicholas, J., & Collis, G. M. (2001). Children's representation of pets in their social networks. *Child: Care, Health and Development, 27*(3), 279-294.
- McNicholas, J., Collis, G.M. (2000). Dogs as catalysts for social interactions: Robustness of the effect. *British Journal of Psychology, 91*, 61-70.
- Meinersmann, K., Bradberry, J., & Roberts, F. (2008). Equine-facilitated psychotherapy with adult female survivors of abuse. *Journal of Psychosocial Nursing and Mental Health Services, 46*(12), 36-42.
- Melson, G.F. (1991). Children's attachment to their pets: Links to socio-emotional development. *Children's Environments Quarterly, 82*, 55-65..

- Melson, G. F. (1998). The role of companion animals in human development. In C. Wilson, & D. Turner (Eds.), *Companion animals in human health* (pp. 41-48). Thousand Oaks, CA: Sage.
- Melson, G. F. (2000). Companion animals and the development of children: Implications of the Biophilia Hypothesis. In A. Fine (Eds.), *Handbook on animal-assisted therapy: Theoretical foundations and guidelines for practice* (pp. 375-382). Pamona, CA: Academic Press.
- Melson, G. F. (2002). Psychology and the study of human-animal relationships. *Society & Animals*, 10(4), 347-352.
- Melson, G. F. (2003). Child development and the human-companion animal bond. *American Behavioral Scientist*, 47(1), 31-39.
- Melson, G. F., Peet, S., & Sparks, C. (1991). Children's attachment to their pets: Links to socio emotional development. *Children's Environment Quarterly*, 8, 55-65.
- Melson, G. F., Schwarz, R. L., & Beck, A. M. (1997). Importance of companion animals in children's lives: Implications for veterinary practice. *Exploring the bond*, 211(12), 1512-1518.
- Messent, P. R. (1983). Social facilitation of contact with other people by pet dogs. In A. H. Katcher & A. M. Beck (Eds.), *New perspectives on our lives with companion animals* (pp 45-67). Philadelphia, Pa: University of Philadelphia Press.
- Morse, J. M., & Field, P.A. (1995). *Qualitative research methods for health professionals*. Thousand Oaks, CA: Sage.

- Morse, J. M., Hutchinson, S., & Penrod, J. (1998). From theory to practice: The development of assessment guides from qualitatively derived theory. *Qualitative Health Research*, 8, 329-340.
- Motooka, M., Koike, H., Yokoyama, T., Kennedy, N. L. (2006). Effect of dog-walking on autonomic nervous activity in senior citizens. *Medical Journal of Australia*. 184(2), 60-63.
- Nagengast, S. L., Baun, M. M., Megel, M., & Leibowitz, J. M. (1997). The effects of the presence of a companion animal on physiological arousal and behavioral distress in children during a physical examination. *Journal of Pediatric Nursing*, 12(6), 323-330.
- Nathans-Barel, I., Feldman, P., Berger, B., Modai, I., & Silver, H. (2005). Animal-assisted therapy ameliorates anhedonia in schizophrenia patients. *Psychotherapy and Psychosomatics*, 74, 31-35.
- National Adolescent Health Information Center (2004). *Fact sheet on adolescent and young adults suicide*. Retrieved April 30, 2011 from, <http://nahic.ucsf.edu/downloads/Suicide.pdf>.
- National Center on Addiction and Substance Abuse (2003). *Formative years: Pathways to substance abuse among girls and young women ages 8-22*. Columbia University, New York, NY.
- National Institute of Drug Abuse (2005). National Institutes of Health (NIH). Retrieved April 30, 2011, from <http://drugabuse.gov/DirReports/DirRep206/default.html>.
- National Survey on Drug Use and Health (NSDUH) (2002, 2004). Department of Health and Human Services, Substance Abuse and Mental Health Services

- Administration. Retrieved April 30, 2011, from <https://nsduhweb.rti.org>.
- New Freedom Commission on Mental Health (2003). *Achieving the promise: Transforming mental health care in America*. Rockville, MD: US Department of Health and Human Services DHHS publications.
- Nightingale, F. (1969). *Notes on Nursing*. New York: D. Appleton Century.
- Nimer, J., & Lundahl, B. (2007). Animal-assisted therapy: A meta-analysis. *Anthrozoos*, 20(3), 225-238.
- Noonan, E. (2008). People and pets. *Psychodynamic Practice*, 14(4), 395- 407.
- Office of National Drug Control Policy (2006). *Girls and drugs. A new analysis: Recent trends, risk factors and consequences*. Retrieved April 30, 2011, from <http://www.eric.ed.gov:80/PDFS/ED495770.pdf>.
- Peretti, P.O. (1990). Elderly-animal friendship bonds. *Social Behavior and Personality*, 18, 151-156.
- Pipher, M. (1994). *Reviving Ophelia: Saving the selves of adolescent girls*. New York, NY: Random House.
- Plager, K. (1994). Hermeneutic phenomenology: A methodology for family health and health promotion study in nursing In: P. Benner (Eds.), *Interpretive Phenomenology* (pp. 65-83). Thousand Oaks, CA: Sage.
- Raina, P., Waltner-Toews, D., Bonnett, B., Woodward, C., & Abernathy, T. (1999). Influence of companion animals on the physical and psychological health of older people: An analysis of a one-year longitudinal study. *Journal of American Geriatric Society*, 47(3), 323-329.

- Redefer, L. A., & Goodman, J. F. (1989). Brief report: Pet-facilitated therapy with autistic children. *Journal of Autism and Developmental Disorders, 19*(3), 461-467.
- Reichert, E. (1998). Individual counseling for sexually abused children: A role for animals and storytelling. *Child and Adolescent Social Work Journal, 15*(3), 177-185.
- Reiger, G., & Turner, D. C. (1999). How depressive moods affect the behavior of singly living person toward their cats. *Anthrozoos, 12*(4), 224-233.
- Richeson, N. E. (2003). Effects of animal- assisted therapy on agitated behaviors and social interactions of older adults with dementia. *American Journal of Alzheimer's Disease and other Dementias, 18*, 353-358.
- Roberts, F., Bradberry, J., & Williams, C. (2004). Equine-facilitated psychotherapy benefits students and children. *Holistic Nursing Practice, 8*(1), 32-35.
- Robinson, I. H. (1999). The human-horse relationship: How much do we know? *Equine Veterinary Journal, 28*, 42-45.
- Rogers, J., Hart, L.A., & Boltz, R.P. (1993). The role of pet dogs in causal conversations of elderly adults. *Journal of Social Psychology, 133*, 265-277.
- Rossetti, J., & King, C. (2010). Use of animal-assisted therapy with psychiatric patients. *Journal of Psychosocial Nursing and Mental Health Services, 48*(11), 44-48.
- Sams, M. J., Fortney, E. V., & Willenbring, S. (2006). Occupational therapy incorporating animals for children with autism: A pilot investigation. *American Occupational Therapy Association, 60*, 268-274.

- Schneider, M., & Harley, L. (2006). How dogs influence perceptions of psychotherapists. *Anthrozoos, 19*(2), 128-142.
- Schoen, C., Davis, K., & Collins, K. S. (1997). *The commonwealth fund survey of the health of adolescent girls*. Retrieved April 30, 2011, from www.cmwf.org/publications.
- Schuelke, S. T., Trask, B., Wallace, C., Baun, M. M., Bergstrom, N., & McCabe, B. (1992). Physiological effects of the use of a companion animal dog as a cue to relaxation in diagnosed hypertensives. *The Latham Letter, 13*(1), 14-17.
- Schultz, P. N., Remick-Barlow, G. A., & Robbins, L. (2007). Equine-assisted psychotherapy: a mental health promotion/intervention modality for children who have experienced intra-family violence. *Health and Social Care in the Community, 15*(3), 265-271.
- Serpell, J. A. (1991). Beneficial effects of pet ownership on some aspects of human health and behaviour. *Journal of the Royal Society of Medicine, 84*, 717-720.
- Serpell, J. (1996). *In the company of animals: A study of human-animal relationships*. New York, NY: Cambridge University Press.
- Shiloh, S., Sorek, G., & Terkel, J. (2003) Reduction of state-anxiety by petting animals in a controlled laboratory experiment. *Anxiety, Stress and Coping: An International Journal, 16*(4), 387-395.
- Siegel J. M. (1990). Stressful life events and use of physician services among the elderly: The moderating role of pet ownership. *Journal of Personality and Social Psychology, 58*(6), 1081-1086.

- Sprague, M. W. (1999). Pet therapy resources on the World-Wide Web. *Health Care on the Internet*, 3(4), 3-12.
- Stammbach, K. B., & Turner, D. C. (1999). Understanding the human-cat relationship: Human social support or attachment. *Anthrozoos*, 12(3), 162-168.
- Stein, B. D., Jaycox, L. H., Kataoka, S., Rhodes, H. J., & Vestal, K. D. (2003). Prevalence of child and adolescent exposure to community violence. *Clinical Child and Family Psychology Review*, 6(4), 247-264.
- Strand, E.B. (2004). Interparental conflict and youth maladjustment: the buffering effect of pets. *Stress, Trauma, and Crisis*, 7, 151-168.
- Sterba, J.A. (2007). Does horseback riding therapy or therapist-directed hippotherapy rehabilitate children with cerebral palsy? *Developmental Medicine and Child Neurology*, 49(1), 68-73.
- Thorpe, R. J., Simonsick, E. M., Brach, J. S., Ayonayon, H., Satterfield, S., Harris, T.B., Garcia, M., Kritchevsky, S.B. (2006). Dog ownership, walking behavior, and maintained mobility in late life. *Journal of American Geriatrics Society*, 54, 1419-1424.
- Tower, R. B., & Nokota, M. (2006). Pet companionship and depression: Results from a United States internet sample. *Anthrozoös*, 19(1), 50-64.
- Triebenbacher, S. (1998). The relationship between attachment to companion animals and self-esteem. In C. Wilson, & D. Turner (Eds.), *Companion animals in human health* (pp. 135-148). Thousand Oaks, CA: Sage Publications.
- Triebenbacher, S. L. (1998). Pets as transitional objects: Their role in children's emotional development. *Psychological Reports*, 82, 191-200.

- Trotter, K., Chandler, C. K., Goodwin-Bond, D., & Casey, J. (2008). A comparative study of the efficacy of group equine assisted counseling with at-risk children and adolescents. *Journal of Creativity in Mental Health, 3*(3), 254-284.
- Tsai Chia Chun, Friedmann, E., Thomas, S. A. (2010). The effect of animal-assisted therapy on stress responses in hospitalized children. *Anthrozoos, 23*(3), 245-258.
- Turner, D. C., Rieger, G., & Gyax, L. (2003). Spouses and cats and their effects on human mood. *Anthrozoos, 16*(3), 213-228.
- U.S. Department of Health and Human Services. *Girl Power*. Retrieved April 30, 2011, from <http://www.girlpower.gov>.
- Van Houtte, B., & Jarvis, P. A. (1995). The role of pets in preadolescent psychosocial development. *Journal of Applied Developmental Psychology, 16*, 463-479.
- Vidovic, V., Stetic, V., & Bratko, D. (1999). Pet ownership, type of pet, and socio-emotional development of school children. *Anthrozoos, 12*(4), 211-217.
- Vidrine, M., Owen-Smith, P., & Faulkner, P. (2002). Equine-facilitated group psychotherapy: Applications for therapeutic vaulting. *Issues in Mental Health Nursing, 23*, 587-603.
- Walsh, F. (2009a) Human-animal bonds I: the relational significance of companion animals. *Family Process, 48*(4), 462-480.
- Walsh, F. (2009b) Human-animal bonds II: The role of pets in family systems and family therapy. *Family Process, 48*(4), 481-499.
- Walsh, P.G., Mertin, P.G., Verlander, D.F., & Pollard, C.F. (1995). The effects of dementia in a psychiatric ward. *Australian Occupational Therapy Journal, 42*, 161-166.

- Wells, D. L. (2009). The effects of animals on human health and well-being. *Journal of Social Issues, 65*(3), 523-543.
- Wesley, M. C., Minatrea, N. B., & Watson, J. C. (2009). Animal-assisted therapy in the treatment of substance dependence. *Anthrozoos, 22*(2), 137-148.
- Weston, F. (2001). Using animal-assisted therapy with children. *British Journal of School Nursing, 5*(7), 344 -347.
- Willis, D.A. (1997). Animal therapy. *Rehabilitation Nursing, 22*(2), 78-81.
- Wilson, E. (1984). *Biophilia*. Cambridge, MA: Harvard University Press.
- Yorke, J., Adams, C., & Coady, N. (2008). Therapeutic value of equine-human bonding in recovery from trauma. *Anthrozoos, 21*(1), 17-30.
- Youth Risk Behavior Surveillance System (2009). Centers for Disease Control and Prevention. Retrieved on April 30, 2011, from <http://www.cdc.gov/Features/RiskBehavior>.
- Zasloff, R.L., & Kidd, A. H. (1994). Loneliness and pet ownership among single women. *Psychological Reports, 75*(2), 747-52.

Appendix A

Consent Form (Adolescent Participant) Study: **The relationship between adolescent girls and horses; Implications for equine-assisted therapy**

I am a nurse and a doctoral nursing student at Kent State University. I am conducting research on the relationship between adolescent girls and horses. I am talking with both girls who enjoy horses as recreation and with girls who relate to horses as part of a therapeutic program. I hope to understand the ways in which horses can help adolescent girls cope with or enjoy their lives. I would like to invite you to participate in this project. If you decide to do this, you will be asked to spend about 1-1 1/2 hours talking to me about your relationship with a horse. The interview will be tape recorded and later written out. I may need to contact you sometime after the interview, up to two months, to ask you more about your information, to see if you have any more thoughts to add, or to ask you to review a summary of the results of the study.

The information from your interview will be combined with information provided by other girls. Your name will not be used reporting any way. Results will be reported for the group as a whole, although description of experiences and quotes may be used as examples. Your tape and interview information will be kept in a locked drawer. After the study is completed, the transcripts will be shredded and the tapes destroyed.

If you take part in this project, it will help towards understanding how a relationship with a horse can be helpful to teenage girls and help improve and support therapies involving horses. I do not anticipate that there will be any risks to you other than some discomfort if you talk about sensitive issues. Taking part in this study is entirely up to you, and no one will hold it against you if you decide not to participate. If you do decide to take part, you may stop the interview at anytime and decide not to continue to participate in the study. Following completion of the interview, you will be given \$20 to thank you for your time.

If you want to know more about this research project, please call Meg Toukonen (440-313-5250) or her advisor, Dr. Barbara Drew (330 672 8821). The project has been approved by Kent State University. If you have questions about Kent State University's rules for research, please call Dr. John West, Vice Provost and Dean, Division of Research and Sponsored Programs (330-672-0700). You will receive a copy of this consent form.

Consent Statement

I agree to take part in this project. I know what I will be asked to do and that I can stop at anytime.

Participant Signature

Date

Appendix B

Consent Form (Parent/Guardian)

Study: **The relationship between adolescent girls and horses; Implications for equine-assisted therapy**

I am a nurse and a doctoral nursing student at Kent State University. I am conducting research on the relationship between adolescent girls and horses. I am doing this study because horses are being used for therapeutic purposes and I hope to gain a better understanding about ways in which horses can be helpful to adolescent girls. I would like to ask if you will allow your daughter to take part in this project. If you decide to do this, your child will be asked to spend about 1-1 1/2 hours talking to an interviewer about her relationship with her horse. The interview will be audio taped and later transcribed. I may need to contact your daughter sometime after the initial interview, up to two months, to ask for clarification of some information that she provided, to inquire about any additional thoughts she might have had, or to ask her to review a summary of the results of the study.

The information from the interview will be combined with information provided by other girls. Your daughter's name will not be used in any way. Results will be reported for the group as a whole, although description of experiences and quotes may be used as examples. Her tape and interview information will be kept in a locked drawer. After the study is completed, the transcripts will be shredded and the tapes destroyed.

If your daughter takes part in this project, it will help towards understanding how a relationship with a horse can be helpful to teenage girls and help improve and support therapies involving horses. Your daughter's participation in this study is entirely up to you and your daughter, and no one will hold it against you or your child if you decide that she should not participate. If your child does take part, she may stop the interview at anytime and decide not to continue to participate in the study. Following completion of the interview, she will be given \$20 to thank her for her time.

If you want to know more about this research project, please call Meg Toukonen (440-313-5250) or her advisor Dr. Barbara Drew (330 672 8821). The project has been approved by Kent State University. If you have questions about Kent State University's rules for research, please call Dr. John West, Vice Provost and Dean, Division of Research and Sponsored Programs (330-672-0700). You will receive a copy of this consent form.

Consent Statement

I agree to let my daughter take part in this project. I know what she will have to do and that she can stop at anytime.

(Guardian/parent Signature)

(Date)

(phone number)

I agree to allow my daughter, _____ to be audio
taped at

_____ on _____.
(Location) (Date)

Consent _____
(Signature) (Date)

Appendix C

Audio Consent Form

Study: **The Relationship between adolescent girls and horses:
Implications for equine-assisted therapy**

I agree to audio taping

at _____
Name of Stable

on _____.
Date of Interview

Signature

Date

I have been told that I have the right to hear the audio tapes before they are used. I have decided that I:

____ want to hear the tapes ____ do not want to hear the tapes

Sign now below if you do not want to hear the tapes. If you want to hear the tapes, you will be asked to sign after hearing them.

Meg Toukonen and other researchers approved by Kent State University may / may not use the tapes made of me. The original tapes or copies may be used for:

____ this research project ____ teacher education ____ presentation at
professional meetings

Signature

Date

Address:

Appendix D

Demographic Data

**Study: The relationship between adolescent girls and horses:
Implications for equine-assisted therapy**

Age _____

Grade level in school _____

Average grade in school (circle one)

A B C D F

Who do you live with _____

Ages of sisters _____ (write 0 if none)

Ages of brothers _____ (write 0 if none)

Other pets _____ (list type and number)

Hobbies _____

Phone number for future contact, if necessary _____

Appendix E-1

Interview Guide (Recreational Facility)
Study: **The relationship between adolescent girls and horses:
Implications for equine-assisted therapy**

Tell me about yourself.

Tell me about your horse.

Describe the relationship you have with your horse.

Tell me how you became interested in horses.

How do you feel about your horse?

How do you think your horse feels about you?

How does your relationship with your horse affect your life?

How do you deal with difficult things that are happening to you?

Do you have any other pets?

Describe the relationship you have your other pet/s compared to your horse.

Appendix E-2

Interview Guide (Therapeutic Facility)
Study: **The relationship between adolescent girls and horses:
Implications for equine-assisted therapy**

Tell me about yourself.

Tell me about your horse.

Tell me about your work with horses at the riding center.

Describe the relationship you have with horses at the riding center.

How do you feel about working with horses?

How do you think the horses feel about you?

Has working with horses been helpful to you or not?

Do you feel differently about horses now that you have been working with them in treatment? How?

Appendix F

Poster

**Study: The relationship between adolescent girls and horses:
Implications for equine-assisted therapy****GIRLS WHO LOVE HORSES
NEEDED
FOR A STUDY!**

*If you:

- are a girl between 13 and 17 years old
- have been working with a horse for at least 1 year

*Then you are invited to participate in this study

Participation Involves:

- * A 60-90 minute private interview
- * Feeling comfortable talking about you and your horse.
- * Getting \$20 for your time.
- * Helping other teens involved with horses.

For more information and to sign up
call 440-313-5250

This is a research dissertation study conducted by Meg Toukonen, PhD(c), RN, CNS and has been approved by the Kent State University Human Subjects Review Board: (330) 672-2704

Appendix G

Information script for facilities

Study: **The relationship between adolescent girls and horses:**

Implications for equine-assisted therapy

Horses are being used in therapy to help adolescent girls with psychosocial problems. We don't have a clear understanding about how working with a horse is helpful to them. Meg Toukonen is a doctoral student in Nursing at Kent State University and the University of Akron. She aims to gain a better understanding of the adolescent girl-horse relationship in order to help programs incorporate horses into their therapeutic programs. This will be a qualitative study, collecting data from interviews with adolescent girls about their relationships with horses. Girls will be interviewed in two different settings. One setting will be a recreational riding stable and one setting will be a therapeutic setting. The study will need about 40 girls to interview (20 from your facility). The information gained from the girls at both settings will be compared and contrasted looking for similar themes.

The study will obtain approval from the Kent State IRB, both facilities, the adolescent girl participants, the guardians, and any necessary staff members. The interviews will be about 1-1/2 hours long and can be scheduled at the girls' convenience. The girls will be told that the interviews are voluntary, confidential, and they can stop at any time. The participants will receive a horse keychain to compensate for their time.

If you want to know more about this research project, please call Meg Toukonen (330-876-0095) or her advisor, Dr. Barbara Drew (330-672-8821). The project has been

approved by Kent State University. If you have questions about Kent State University's rules for research, please call Dr. John West, Vice Provost and Dean, Division of Research and Sponsored Programs (330-672-0700). Your participation in this study would be greatly appreciated.