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CHAPTER

4

Adolescents and Pets

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When Lydia was about 12 years of age her family moved from the city of London out to a suburb in the nearby county of Kent. Lydia's parents wanted her to go to a particular school that she was not very keen on attending. So, even though her mother was not an animal lover Lydia's mother agreed to allow her to have a pet. Lydia really wanted a dog, but her parents refused this request and agreed that she could have either a cat or rabbit. Lydia ended up with both. During the most difficult times of Lydia's adolescent life she would often sit in her room with her cat, Cleo, or her rabbit, Bonnie, on her lap, petting it, as she listened to music to alleviate her sadness or worries.

The above anecdote supports much of the literature regarding what adolescents often say about their pets (Black, 2009; Blum Barish, 2002; Cassels, White, Gee, & Hughes, 2017; Chandler, 2012; Fine, 2010; Malone, 2016; Piper, 2014; Rew, 2000; Thompson, McManus, Lantry, Windsor, & Flynn, 2006; Walsh, 2009; Winerman, 2017; Zilcha-Mano, Mikulincer, & Shaver, 2012). It is commonly understood that children and pets "develop strong bonds" (Selly, 2014, p. 9) as they often grow up together and share formative experiences (Lohmann, 2017). In fact, people with young children are the most likely US household cohort to have a pet (Newport, Jones, Saad, & Carroll, 2006). To an adolescent, pets are often an emotional comfort, a confidant, and someone that loves them unconditionally (Lohmann, 2017). But what is an adolescent?

This chapter describes the multiple stages of adolescence and the importance of animals in their lives. From the ages of 10–25, adolescents and the role that their pets play in each other's lives change dramatically. Here, we present three adolescent stages and the value of human-pet relationships

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for adolescents during these three distinct stages. We then explore pet's impact on adolescents' physical health, social emotional development, and socialization. This includes an assessment of specific adolescent populations such as college students, rural, homeless, at-risk (including those who are suicidal), as well as those participating in canine-assisted therapy. Lastly, experiences from several adolescents are provided.

ADOLESCENT STAGES

Many authors divide adolescence into three distinct stages: early adolescent, late adolescent, and emerging adulthood (Arnett, 2006; Malone, 2016; Munsey, 2006; Tanner & Arnett, 2009). These authors further define early adolescent age range as 10–14 years of age, late adolescent as between 15 and 17 years of age, and emerging adulthood as 18–25; each with distinct physical, social, emotional, and cognitive developmental changes that impact a person throughout their life (Arnett, 2006; Edenberg & van Lith, 2011; Malone, 2016; Munsey, 2006; Purewal et al., 2017; Sturman & Moghaddam, 2011; Tanner & Arnett, 2009).

Early Adolescence

Physical changes in early adolescents include growth spurts, developing secondary sex characteristics and facial hair, among many others (Arnett, 2006; Cassels et al., 2017; Choate, 2014; Malone, 2016; Munsey, 2006; Sturman & Moghaddam, 2011; Tanner & Arnett, 2009; van Houtte & Jarvis, 1995). In some, these sudden growth spurts result in clumsiness or awkwardness. Important social changes that occur in adolescents include developing a larger social network and transitioning their trust to peers with these peers becoming more important to them than their biological family. These peer relationships can help facilitate the development of interpersonal competence, more specifically; autonomy, identity, self-expression, coping, trust, and empathy (Arnett, 2006; Cassels et al., 2017; Choate, 2014; Malone, 2016; Munsey, 2006; Sturman & Moghaddam, 2011; Tanner & Arnett, 2009; van Houtte & Jarvis, 1995).

An important aspect to understand about early adolescence is that while striving for independence, adolescents are still reliant on their family for transportation, money, food, and feedback on the decisions they are making in their lives (Balk & Corr, 2001; Cassels et al., 2017; Malone, 2016). These same authors define early adolescence as a period of independence versus dependence; of high self-consciousness and low self-disclosure. Pets have been found to serve as sounding boards, nonjudgmental listeners, and valuable confidants for adolescents seeking to share personal and

private thoughts with someone who they can trust to maintain privacy (Marsa-Sambola et al., 2017).

Early adolescence cognitive style is to think in still primarily black and white, or all or nothing terms, commonly known as concrete thinking (Choate, 2014; Malone, 2016; Noppe & Noppe, 2004). Early adolescents begin to gain an understanding that other people may think differently than they do, causing cognitive dissonance leading to the development of abstract thinking abilities as well as an increased capacity for problem solving (Choate, 2014; Malone, 2016; Noppe & Noppe, 2004). Early adolescents also tend to value their peer opinions when compared to earlier childhood. This is a change from earlier when the parental opinion was more important to the adolescent.

Late Adolescence

The late adolescent stage encompasses typical high school years, (ages 15–17). Their personality and temperament are more clearly defined, and their commitment to forming and maintaining interpersonal relationships are stronger. Researchers (Arnett, 2006; Malone, 2016; Marsa-Sambola et al., 2017; Tanner & Arnett, 2009) have defined the late adolescent stage as closeness versus distance with relationships with parents, siblings, and peers changing. Specifically, the late stage adolescent may focus more on education, employment, important intimate relationships, and possibly marriage (Arnett, 2006). Their relationships shift from being mainly dependent to one where power and responsibility is shared. They also demonstrate less commitment to family obligations (Arnett, 2006; Malone, 2016; Marsa-Sambola et al., 2017; Tanner & Arnett, 2009). At this stage of life, children are developing their personal set of values, goals, and beliefs (Erikson, 1997). As adolescents define themselves, their adopted values and beliefs may bring them closer to (or set them further apart from) their family and existing peer groups. In addition to the emotional changes occurring during this life stage, adolescents are also aware of physical changes that are happening to them and to their peers. How they interact with the world during this critical time helps to shape their roles in society and their future.

Physically, late adolescents have typically acquired their adult height and secondary sex characteristics, and are developing their sexual identity (Arnett, 2006; Choate, 2014; Malone, 2016; Tanner & Arnett, 2009). They are increasingly concerned about how others view their bodies, if they are desirable, how the media defines what is acceptable or not, as well as their sexual orientation (Choate, 2014). Long-term relationships are explored in this stage, hopefully leading to the formation of ideals such as commitment, caring, and concern for others (Erikson, 1997). The role of friendships during later adolescence cannot be understated (Valkenburg, Peter,

& Schouten, 2006). Negative experiences in this stage can cause people to feel a sense of loneliness, depression, and isolation.

Socially, late adolescents are fully engaged with their peer relationships and the family has become far less important (Arnett, 2006; Choate, 2014; Edenberg & van Lith, 2011; Griffin-Shirley & Nes, 2005; Levinson, 1978; Malone, 2016; Noppe & Noppe, 2004; Tanner & Arnett, 2009). The main process in late adolescence is identity formation and acceptance by their peers is paramount in this identity formation. Self-esteem and self-efficacy are important in the formation of their identity. Experimentation is also part of forming an identity. Experimentation in clothing, hairstyles, makeup, roles, piercings, and sexuality are common. Although they have a strong desire to be part of a group, they also want to be seen as unique. Particularly important at this time is the pressure from other peers who are antisocial who may influence the teenagers' antisocial behaviors through the use of drugs or alcohol (Arnett, 2006; Choate, 2014; Edenberg & van Lith, 2011; Griffin-Shirley & Nes, 2005; Levinson, 1978; Malone, 2016; Noppe & Noppe, 2004; Tanner & Arnett, 2009).

Cognitively, late stage teenagers are able to think more abstractly, increasing their capacity for problem solving, no longer blindly accept others perceptions as theirs, and may start questioning other people's perceptions (Arnett, 2006; Choate, 2014; Malone, 2016; Tanner & Arnett, 2009). They are developing the ability to recognize complex emotions. Empathy and compassion are now part of the late teenagers' emotional repertoire. However, emotional regulation appears to bring a tumultuous time to the late adolescent and impulse control can be an issue in this stage of life (Arnett, 2006; Choate, 2014; Malone, 2016; Tanner & Arnett, 2009).

Emerging Adulthood

The adult emerging stage is characterized as consisting of a sense of being settled into one's life yet still lacking structure (Arnett, 2006; Malone, 2016; Munsey, 2006; Tanner & Arnett, 2009). It is suggested that individuals in emerging adulthood are often in flux as they voluntarily enter into undergraduate or graduate education, where responsibility for their performance largely falls on their shoulders. They must choose the courses they take, the program of study they will follow in college, and how they will navigate the balance among academic and social pressures. While in some cases, parents may still be helping financially, often emerging adults are required to obtain a part-time job to help finance the education that they have chosen. Many emerging adults are in long-term relationships which may or may not result in full commitment by both parties, potentially causing trust issues to arise (Arnett, 2006; Malone, 2016; Munsey, 2006; Tanner & Arnett, 2009).

Adolescents experience five characteristics key to emerging adulthood (Arnett, 2006; Malone, 2016; Munsey, 2006; Tanner & Arnett, 2009). These

characteristics include: (1) exploring their identity; (2) understanding this is a time of uncertainty; (3) understanding this is an in-between stage where they primarily take responsibility for themselves but still may be assisted by their parents in some way; (4) focusing on the self for improvement and choices about education, relationships, careers; and (5) acknowledging this is an age of possibility and that there are opportunities that can lead to a better chance of providing a better quality of life for themselves.

This stage also encompasses exploring who they are and who they want to be as they enter adulthood. Emerging adulthood is also an unstable period where they may be living in a dorm, renting a house with peers, looking for work, or entering into more serious or enduring romantic relationships.

It would important for a counselor to know and understand the adolescents' developmental stage in order to provide assistance to the particular adolescent. Adolescents, depending on their developmental stage, vary in their style of thinking, engagement with others, perceptions, and emotional reactions. Working with an early stage adolescent is very different from working with an emerging adulthood adolescence. Some examples of these differences include: early adolescents being more financially supported by parents, whereas an emerging adulthood adolescent might be far more financially independent. This is also important when we look at who the adolescent turns to for emotional support. An early adolescent might look toward a large group of peers for support while an emerging adulthood adolescent might turn to a significant other or a close friend. This difference could be critical when assessing possible interventions or supports for individuals.

PETS

The Merriam-Webster dictionary defines a pet as "a domesticated animal kept for pleasure rather than utility." Historically animals were seen and used more for industrial purposes such as farming, herding, burden carriers, hunting, and as a possession by humans (Irvine, 2004; Tipper, 2011). However, in the late 20th century, animals became more humanized by humans (Irvine, 2004; Tipper, 2011). This domestication of working animals led to people keeping pets (Ault, 2016). The number of US households that report having pets has been growing consistently since 1988 when formal accounts were initiated. According to the American Pet Products Association (APPA), in 1988, 56% of US households had a pet. Clancy and Rowen (2003) further delineated this data and report that 37% of US households had a dog and 30% had a cat. In the most recent APPA National Pet Owners Survey (2017–18), it was reported that 68% of US households indicated having a pet, an increase of 12% over the 20 years.

Vast sums of money are spent caring for these animals all over the world (Irvine, 2004; Tipper, 2011). The APPA (2017) market analysis found that $66.75 billion dollars were spent on pets in US households in 2016. The costs of companion pet care includes: nutrition, toys, clothing, grooming, boarding, veterinary care, and end-of-life care (i.e., pet cemeteries, cremation) (APPA, 2017). Bradley and King (2012) found that pets in Norway have the most funds spent on their food annually. Norwegians spend an average of $639 per year on dog food, the United States was in the middle of numerous countries with $167 per year, while people in Vietnam were estimated to spend $9 on dog food per year (Bradley & King, 2012).

Beliefs about animals have changed over the centuries and this in turn has changed how we treat them and how we perceive them (Irvine, 2004; Tipper, 2011). Pets may even be considered a substitute for children. Nowadays, pets are loved, cared for, treated as a child, live inside the family dwelling in some cases, on a person's bed, and thus appear to be treated as more human than animal (Irvine, 2004; Tipper, 2011). Some have argued that pets are either replacing children or are resulting in people having children later in life, as they may often get a pet first (or before having children).

A recent trend has been to anthropomorphize pets (Irvine, 2004; Tipper, 2011). This occurs when humans attribute human characteristics to their beloved animals. Two examples may include putting clothing on pets or hosting birthday parties for their pets. In many cases, pets are seen as a member of the family (Irvine, 2004; Tipper, 2011).

ADOLESCENTS AND PETS

As mentioned previously in this chapter, the number of pets in US households continues to increase. Although much of the research on pets focuses on dogs and cats, it should be noted that a wide variety of species are considered pets by members of the US households surveyed. Some examples include: guinea pigs, rabbits, horses, snakes, and insects. See Table 1 for a list of pets kept by US households as reported in the APPA National Pet Owners Survey (2017–18).

The relationships that adolescents have with their pets are likely to have developed throughout the most formative years of their lives. It is commonly understood that children and pets "develop strong bonds" (Selly, 2014, p. 9) as they grow up together. According to a Gallop poll, people with young children are more likely to have a pet in the US household (Newport et al., 2006). This is also true of Canadian households where 77% of families with children between the ages of 12 and 17 years had a pet (Alberta Agriculture and Forestry, n.d.). See Table 2 for a complete listing of the percentage of Canadian households with young and pets.

TABLE 1 Number of US Households That Own a Pet (in Millions)

Bird	7.9
Cat	47.1
Dog	47.1
Horse	2.6
Freshwater fish	12.5
Saltwater fish	2.5
Reptile	4.7
Small animal	6.7

TABLE 2 Percentage of Canadian Households That Own a Pet, Per Child Age Group

Age 2 and under	53%
3–5 years of age	70%
6–11 years of age	75%
12–17 years of age	77%

Many studies have indicated that pets are beneficial to people, including adolescents. These studies have indicated that these pets can act as counselors, confidants, best friends (Black, 2009; Cassels et al., 2017; Griffin-Shirley & Nes, 2005; Zilcha-Mano et al., 2012), or even considered a sibling (Cassels et al., 2017). Additionally, pets offer unconditional love and acceptance (Brown, Richards, & Wilson, 1996; Hanselman, 2001; Piper, 2014; Purewal et al., 2017), the experience of accepting and receiving physical touch (Cassels et al., 2017; Fine, 2010; Piper, 2014), an attachment to an object (Cassels et al., 2017; Marsa-Sambola et al., 2017; Piper, 2014; Zilcha-Mano et al., 2012), or may encourage physical activity or health (Cloutier & Peetz, 2016; Winerman, 2017; Yam et al., 2012). Furthermore, pets have been found to assist in emotional well-being (Black, 2009; Brown et al., 1996; Chandler, 2012; Piper, 2014; Purewal et al., 2017; Zilcha-Mano et al., 2012) and recovery from physical illnesses (Beetz, Uvnäs-Moberg, Julius, & Kotrschal, 2012; Cloutier & Peetz, 2016; Kyngäs, 2004).

van Houtte and Jarvis (1995) studied the impact of owning a pet on pre-adolescent's psychosocial development, which today would be called the early adolescent stage. Their study found that pet owning adolescents, aged 9–12, scored higher on measures of autonomy, self-esteem, and self-concept. Hanselman (2001) expressed that a pet can be seen by an adolescent as a parent (authoritative role) or as a peer. When the

adolescent sees their pet as an idealized mother or as similar to themselves they engage in mutual reciprocity emotions with their pet. Also, when the adolescent is mothering the pet, it has been suggested that they are also mothering themselves.

Black (2009) and others have indicated that adolescents demonstrate attachment behaviors toward their companion animals including trust, and revealing thoughts or feelings that they would not reveal to others. In fact, over 95% of adolescents in Black's study indicated that they drew pleasure from and reported close relationships with their pet. Furthermore, Black (2009) found a correlation between high self-esteem and adolescent attachment to pets, and that negative self-esteem correlates with loneliness in adolescents. Interestingly, Black (2009) also reported that even though female adolescents are more likely than males to engage in nurturing behaviors toward humans, male adolescents are equally likely to engage in nurturing behaviors to their pets. Black (2009) also reports that this caring for the pet can be a buffer against loneliness, and as suicidal behavior is often a correlate of loneliness, suicidal behavior can also be moderated.

Other benefits of adolescents turning to their pets for comfort, sharing confidences, and building attachment is that these adolescents may have more empathy toward other people (Black, 2009; Edenberg & van Lith, 2011; Griffin-Shirley & Nes, 2005; Melson, 2001), have higher self-esteem (Black, 2009; Edenberg & van Lith, 2011; Griffin-Shirley & Nes, 2005), and less anxiety (Edenberg & van Lith, 2011) when compared to those who do not have animal support.

According to Purewal et al. (2017), several studies have demonstrated associations between adolescents' perspective taking, intellectual development, autonomy, and pet ownership. Purewal et al. (2017) posit that pet ownership in adolescents correlates with increased social competence, social networks, social play behavior, and social interaction. Additionally, they state that as pets can give and receive affection, pets are able to contribute or somewhat fulfil adolescent attachment needs. Furthermore, research has shown that having a pet in childhood or adolescence can assist in language acquisition, enhance verbal skills, and can elicit instant positive response in testing situations of memory, classification, and attention (Purewal et al., 2017).

Interestingly, Schvaneveldt, Young, Schvaneveldt, and Kivett (2001), describe what they call a "life course theory." In this theory, they indicate that the pet "carves out a role" in the family. According to Schvaneveldt et al. (2001), the pet has an introductory period where it learns the rules of the house and then later, the emotional connection between humans and the pet develops. Schvaneveldt et al. (2001) also expressed that once the pet is considered a member of the family, phenomena such as "engrossment" and "mood joining" occur, such that the pet is now considered a member of the family and is seen as human. According to Schvaneveldt et al. (2001), adolescents typically want a pet for two reasons: physical

companionship and social support. First, cuddling and petting with the animal and second that the adolescents believe the pets facilitate social connections to others.

According to the Cassels et al. (2017) study with early adolescents, it was found that boys and dog owners indicate they have a stronger relationship with their pets when compared to girls and owners who have pets that are not dogs. Conversely, girls reported deriving more friendship and disclosed more to their pets than did boys. The study also found that the participants reported more satisfaction and experienced less conflict with their pets when compared to the same interactions with their siblings. Interestingly, the study found that girls reported more conflict with their pets compared to boys (Cassels et al., 2017).

In 2011, Edenberg and van Lith reviewed literature relating to child development and the question of whether companion animals influence a child's development in areas related to cognition, emotions, socialization, attachment, and how animal-assisted interventions or animal-assisted therapy assist clinical populations. The conclusions were that although many of the studies have methodological issues and weaknesses, overall the research consistently indicates that animals appear to promote healthy child development. Edenberg and van Lith (2011) recommended that longitudinal studies should be implemented to study the impact of companion animals on children's development.

In 2012, Zilcha-Mano, Mikulincer, and Shaver researched whether a pet can act as a secure base and how the adolescents' pet attachment orientation moderates the pet-owner benefits. In this study, they used the physical presence of a pet, compared to the subject thinking about their pet and no pet being present, on the number of goals set by the adolescent owner, and their confidence in achieving those goals. There was no difference between the physical presence of a pet and thinking about their pet. However, there was significant difference between the physical presence or thinking about their pet versus the no pet condition, in with the pet conditions, researchers saw in increase in goals and confidence. In the second part of the study, Zilcha-Mano et al. (2012) considered the impact of the participants pet attachment orientation (as either avoidant or anxious) on number of goals generated and confidence in achieving the goals. The number of goals set by the adolescent appears to be moderated by an avoiding attachment to their pet, in that this group set less goals. Participants who scored higher on either the avoidant or anxious pet attachment style, scored lower on confidence in achieving their goals. Similar findings were found for the safe haven moderator of the pet for the adolescent and that the attachment style also moderated the sense of the adolescents of having a safe haven or secure base. Overall Zilcha-Mano et al. (2012) conclude that the attachment theory works well in determining factors related to the human-human bond as well as the human-animal bond.

Some authors (Cassels et al., 2017) have indicated that keeping a pet can have negative or unhelpful aspects. Particularly, that the pet could be a substitute for human relationships, may make the family home less hygienic, add expense, be destructive of possessions, and create potential rental housing restrictions such that when the family goes on vacation someone will need to either pay for or take care of the pet (Cassels et al., 2017; Schvaneveldt et al., 2001).

It may prove beneficial for counselors to inquire if the adolescent has a pet and to determine the relationship that the adolescent has with the pet. Drawing on the ways the adolescent may turn to their pet for support could provide insight into how the adolescent finds support or copes with challenging issues. Highlighting and explaining to the adolescent how their relationship with their pet could help alleviate or improve their mood, change their perspective of self and others, develop or improve self-esteem, increase their ability to communicate with others, and increase motivation are important outcomes that counselors could share with adolescents. Being aware of these benefits could allow adolescents to become ore self-aware and more engaged in their own healthy development.

ADOLESCENTS, PETS, PHYSICAL ACTIVITY, AND HEALTH

Many authors and researchers have reported physical benefits that occur when people relate to an animal. These physical benefits include decreased heart rate (Beck et al., 2012; Fine, 2010; Friesen, 2010; Johnson, 2011; Piper, 2014; Yount, Olmert, & Lee, 2012), decreased blood pressure (Chumley, 2012; Fine, 2010; Friesen, 2010; Johnson, 2011; Kinsley, Barker, & Barker, 2012; Piper, 2014; Rovner, 2012; Yeager & Irwin, 2012), a more relaxed body posture (Johnson, 2011; Piper, 2014), and a reduction in physical symptoms of anxiety (Chandler, 2012; Eggiman, 2006; Jalongo, 2005; Kinsley et al., 2012; Piper, 2014; Wilkes, 2009; Yeager & Irwin, 2012).

Many researchers (Arnett, 2006; Choate, 2014; Havener et al., 2001; Malone, 2016; McNicholas & Collis, 2000; Munsey, 2006; Schvaneveldt et al., 2001; Shiloh, Sorek, & Terkel, 2003; Tanner & Arnett, 2009; Winerman, 2017; Yam et al., 2012) have hypothesized that people with pets, such as dogs or horses, may engage in more physical activity and be healthier than those without such pets. However, it would appear that until recently, little is known about the specific impact pets have on the physical well-being of adolescents (Mathers, Canterford, Olds, Waters, & Wake, 2010; Yam et al., 2012).

One such study (Mathers et al., 2010), that took place in Australia and included over 900 adolescents, indicates that having a pet is not necessarily conducive to more exercise for adolescents. However, Mathers, they

noted that the teens did not appear to be involved in caring for their pets. It is possible that if the teens were more involved in the pet's care and exercise that this may have benefit to the teen.

Another study (Yam et al., 2012) conducted in England with adolescents sought to determine if a family-based intervention working with the family's pet dog would increase physical activity. Families were randomly assigned to either the control group or the intervention group. The intervention involved increasing the family's activity with their pet dog over a 10-week period to increase physical exercise. They found that the intervention group had increased their level of physical activity over the 10-week intervention, lowered their body weights, and rated their quality of life as having been improved through activity.

Havener et al. (2001) studied the impact of having a companion animal on early adolescence during dental procedures. They theorized that stress can lead to the development of irrational fears in early adolescents, that distraction is a good tactic when faced with relieving stress, and further capitalizing on the recent research related to human-animal connections, that utilizing a pet dog during a dental procedure might alleviate some of the adolescent stress. Many authors have suggested that pets provide comfort, a source of support, a distraction, and can provide love and affection to their human companions (Chandler, 2012; Fine, 2010; Havener et al., 2001; Piper, 2014). Utilizing a control versus experiential group, Havener et al. (2001) found that the presence of a therapy dog did not result in a significant difference between the two groups for behavioral distress. Nonetheless, the study did find there was a significant difference between the two groups for physiological arousal.

A study (Kyngäs, 2004) conducted in relation to adolescents and chronic illnesses, such as asthma, epilepsy, diabetes, and juvenile rheumatoid arthritis looked at types of support offered to the adolescents during their treatment and recovery. While parents and peers obviously were important in the adolescent's support network, so were their pets. The adolescents reported that they would often cuddle with and stroke their pet and if they felt sad and lonely, they would talk to their pet and perceived that the pet understood their feelings and validated them (Kyngäs, 2004).

As we can see from the earlier studies, pets can help adolescents improve their physical health. Although some studies showed that the participants health did not improve, this may have been because the participants were not actively involved in exercising their pet. Encouraging an adolescent to be more active in their pet's care, taking the pet for walks, playing with their pet, spending time with their pet in a non-active way can all have positive impact on the adolescent's physical well-being. Getting an adolescent to exercise can be an exercise in futility, but asking an adolescent to help keep their pet healthy by walking him and ensuring that his diet is a good diet, can also help the adolescent gain some physical benefits.

ADOLESCENT WITH ILLNESSES

Both humans and animals can contract illnesses (Chandler, 2012; Fine, 2010;Piper, 2014; Steele, 2008). When an illness is present, it is conceivable that they might pass this illness to another person or animal. This process is known as zoonosis (Chandler, 2012; Fine, 2010; Piper, 2014; Steele, 2008). The most common zoonotic diseases are rabies (in dogs, foxes, wolves, coyotes, and other animals), Creutzfeldt-Jakob disease (mad cow disease), West Nile virus (mosquitoes), severe acute respiratory syndrome (SARS, in mammals and birds), avian influenza (birds), and swine influenza (pigs) (Piper, 2014).

According to Piper (2014) and Steele (2008) children, pregnant women, the elderly, and those likely to have a compromised immune system are at a higher risk for contracting a zoonotic disease. Zoonotic diseases can be caused by fleas, parasites, viruses, bacteria, and some types of proteins (Piper, 2014; Steele, 2008). According to Steele (2008), the most likely cause of an infection is a bite from an animal, and that approximately 30% of cat's bites and around 6% of dog bites often result in cellulitis, which then necessitates the use of antibiotics.

Steele (2008) recommends that in order to avoid contracting a zoonotic disease, people who desire to have a pet and are immunocompromised, is to choose a pet that is less likely to have a disease that can be transferred to them. The author also recommends that these patients avoid kissing their pets or allowing the animal to sleep in their bed, and indicates that petting their pet or playing with them presents a minimal risk to individuals with illnesses. Nevertheless, he encourages hand washing after interactions with their pets and that they avoid zoos which can be harbors of many zoonotic diseases (Steele, 2008).

According to some authors (Coakley & Mahoney, 2009), patients in the hospital experience a number of stressors including anxiety about the outcome of treatment, lack of sleep, pain, and being in an unfamiliar place. These factors can impact the patient's well-being and recovery. To mitigate this negative impact, some hospitals have developed interventions that might lessen patients' stress. These interventions include music, therapeutic touch, and visits by a therapy dog. As previously stated, there is anecdotal and scientific research that supports how a therapy dog can mitigate signs of stress such as increased heart rate and blood pressure. The therapy pet can be a distraction, a companion, have a calming influence, and may encourage patients to have pleasant thoughts. These researchers found that the intervention of the pet therapy program helped patients feel less pain, improved their mood and energy level, experience more calmness, and felt happier. Physiologically, however, their blood pressure and heart rate did not change when the intervention of the therapy pet occurred. Interestingly, the visit with the therapy dog lasted 10 min but still produced these results (Coakley & Mahoney, 2009).

Encouraging adolescents with illnesses to be careful around their pets is highly important. There is the possibility of an illness being transmitted to their pet or they might become more infected by a disease their pet may be carrying. While engaging with pets can be medically helpful (reduce blood pressure and heart rate), certain conditions may make it impossible for the adolescent to be near their pet. For example, medical tubing or other equipment may not permit the pet to sleep next to the adolescent as they did prior to the illness. Identifying strategies to maintain the adolescent-pet relationship even with the physical space challenges would be critical to the psychological well-being of both parties.

ADOLESCENTS, PETS, AND MENTAL HEALTH

Many researchers have indicated that there are multiple factors that impact an adolescent's mental health. Some of the experiences that impact an adolescent's mental health are a parent's' divorce, moving, loss of a friendship, a death, loss of an intimate relationship, abuse, assault, an injury, an argument, loss of a pet, and many others. These experiences often result in an adolescent experiencing affective disorders substance abuse, eating disorders, aggression, and a higher risk of suicide. They can also result in a loss of trust, a sense of abandonment, loneliness, grief, anger, sadness, shame, confusion, powerlessness, helpless, loss, grief, isolation, decreases in self-esteem, self-confidence, self-worth, self-harm, and many other changes in self, other, or world beliefs. Depending on prior positive or negative experiences, the adolescence stage, such as early, late, or emerging adult, as well as the adolescent's preferred coping style determine how these experiences impact the adolescent (Black, 2009; Brown et al., 1996; Cassels et al., 2017; Coakley & Mahoney, 2009; Grilo et al., 1999; Luecken & Appelhans, 2005; Malone, 2016; Marsa-Sambola et al., 2017; Purewal et al., 2017; Shiloh et al., 2003).

Marsa-Sambola et al. (2017) indicate that communication between the adolescent and family members, best friends, and romantic partners have been shown to be important in the factors of self-esteem, depression, anxiety, and many other psychological experiences. The study conducted by Marsa-Sambola et al. (2017) focused on the influence of these communications between important people in the adolescent's life and how a pet attachment might influence the communications. Specifically, the study examined the influence of a pet attachment on adolescents' communication with significant others and the adolescents' perceptions of their quality of life. The study found that the adolescents' attachment to a dog partially mediates the effects of communication with significant others on quality of life, when the adolescent considered the dog or cat their own. Thus, the authors suggest that attachment to a dog or cat improve the psychological quality of the adolescent's life.

Support during challenging adolescent experiences has been shown to be an important factor in how well the adolescent manages these situations (Cassels et al., 2017; Piper, 2014). When family or friends fail to emotionally support an adolescent or are the perpetrator of their pain, the adolescent may turn to the unconditional love and acceptance they can receive from their pet, as the following quote from a past client (author LP) depicts quite nicely:

> I have long appreciated the love and acceptance of animals and have sought them out when suffering from bouts of depression. I had a pet dog for 18 years and she sensed when I was sick or depressed. She would look at me with her soulful eyes as if to say "I understand" and she would sit at/on my feet or curl up next to me on the couch and just "be" with me. Her warm body comforted me and the act of petting relaxed my anxiety.

According to several researchers, loneliness is a natural part of an adolescent's experience and can be either transitory or chronic (Black, 2009; Purewal et al., 2017; Shiloh et al., 2003; Winerman, 2017). Reports of loneliness studies have indicated that approximately 66% of adolescent's report experiences of loneliness. This experience of loneliness can be important for survival and may encourage behaviors to become more connected to others. Black (2009) studied loneliness in adolescents and attachment to their animals. The researchers focused on the factors of the number of pets in the home, favorite pet, how long they had had the pet, how the adolescent described relationship with their pet, attachment, social support, and loneliness.

In the study, Black (2009) found that although females are more likely to indicate that they are experiencing loneliness, male teenagers often score higher on loneliness scales. The author posits this higher score on loneliness scales by males may be due to a lack of close relationships. The author also suggests that the experience of loneliness impacts several areas of the adolescent's life, such as physical well-being, and social and emotional areas, yet the high school adolescent pet owner group was significantly less lonely compared to the adolescent non-pet owner group. Further, there was no difference in loneliness scores for cat or dog owners. Also, the adolescents' perceived bonding with their pets was negatively correlated with loneliness. Participants in the study descriptively described their relationship with their pets as a confidant, a family member, and a special friend (Black, 2009).

Pet ownership appears to be a buffer to loneliness (Black, 2009; Cassels et al., 2017; Edenberg & van Lith, 2011; Purewal et al., 2017; Shiloh et al., 2003; Winerman, 2017). More specifically, how the adolescent feels about their pets, the quality of the relationship with their pet, moderates the adolescent's experience of loneliness. Given that loneliness is often a correlate of low self-esteem, owning pets would appear to ameliorate both of

these very common adolescent difficulties. Other researchers (Coakley & Mahoney, 2009; Purewal et al., 2017; Shiloh et al., 2003; Winerman, 2017) have found that pets ameliorate loneliness and social isolation but not necessarily depression itself.

Counselors can engage adolescents with their pet's in activities that can benefit the adolescent's mental well-being, such as the pet aiding communication with others, diminishing a sense of loneliness in the adolescent, confiding to their pet their troubles; merely "owning" a pet can help build the adolescents self-esteem and decrease loneliness. This can be especially true when the adolescent experiences disruptions of family life or friends moving away.

RURAL ADOLESCENTS AND PETS

According to Black (2012), rural adolescents who had a pet scored significantly lower on measures of loneliness, and that their level of bonding to their pets was inversely correlated to their loneliness scores. However, Nist and Glenn (2012) disagree with Black's finding and suggest confounding factors in the study may have impacted their findings.

In a different study with rural adolescents and companion animals, Black (2009) indicated that the pets ameliorated adolescents' loneliness and increased social interaction. As loneliness and low self-esteem are often correlated with suicidal behaviors in adolescents, it would appear that having a pet in a rural community can be of benefit to the adolescent (Black, 2009; Shiloh et al., 2003; Winerman, 2017). Also, according to Black (2009), an adolescent's sense of attachment to their pet(s) also correlated positively with the number of human social supports for the adolescent.

AT-RISK ADOLESCENTS AND PETS

According to Winerman (2017), programs in juvenile detention centers that require adolescents to spend several weeks training a rescue dog may have a positive impact, yet there has been little actual research conducted on the impact of these programs. These dog training programs focus on helping adolescents develop social skills, compassion, and empathy. Despite a lack of well-designed research studies, many teenagers how have gone through such programs often report significant benefits.

Hanselman (2001) who researched the benefits of having an animal in a group for adolescents with anger management issues found that children and adolescents who have insecure attachment usually see themselves as unworthy, unlovable, and powerless; yet the presence of pets in an adolescent anger management group may increase feelings of "happiness,

security, and self-worth." Further, according to Cassels et al. (2017) and Hanselman (2001), pets help facilitate attachment and attachment behaviors, as well as reducing feelings of stress isolation and loneliness in the adolescents. Many researchers have noted a positive impact of having a dog in a therapy session, either individual or group, on adolescents' behavior. Specifically, they can help adolescents engage in more positive behaviors, act out less, and become more cooperative (Chandler, 2012; Fine, 2010; Geist, 2011; Hanselman, 2001; Lange, Cox, Bernert, & Jenkins, 2006; Piper, 2014).

Whether in therapy or at home, animals can be seen as transitional objects and can represent a "good-enough mother" and can turned to for comfort in times of separation or stress. A "good-enough mother" is an external object that provides adequate constancy and comfort to a child or adolescent (Glickauf-Hughes & Wells, 2007; Piper, 2014; Sacks, 2008; Zilcha-Mano et al., 2012; Zilcha-Mano, Mikulincer, & Shaver, 2011). As Black (2009) noted, kids can be comforted by their pets, and may confide in them in times of distress, ameliorating a sense of loneliness.

HOMELESS ADOLESCENTS AND PETS

Another at-risk adolescent population are homeless adolescents who are in danger from many spheres (Bender, Thompson, McManus, Lantry, & Flynn, 2007; Rew & Horner, 2003). One such risk is related to physical health. This population, according to Rew and Horner (2003), is particularly vulnerable to sexually transmitted diseases and HIV. However, this population (Bender et al., 2007; Rew & Horner, 2003) has been shown to have strengths that assist them in their high-risk environment. Specifically, the homeless youths have resolve, self-efficacy, motivation, moral values, spirituality, pride, empathy, problem-solving ability, and a strong commitment to personal relationships. They also have self-confidence and are able to advocate for their physical well-being (Rew & Horner, 2003). These homeless adolescents, according to Bender et al. (2007), also demonstrate resourcefulness and self-improvement. They will turn to their peer community for support and guidance, especially when they are newcomers to homelessness. Further, these homeless youths will often have a canine companion who provides companionship, body heat when the weather is cold, and protection from would-be assailants, as well as the capacity to enjoy the human-animal bond (Bender et al., 2007; Rew & Horner, 2003).

Homelessness appears to be an epidemic in the United States. According to Berkoff (2013), the estimated number of homeless people in the United States is 640,000 and between 5% and 10% of homeless people have a pet. Because of the large number of homeless Americans, there are organizations and websites related to providing assistance for

homeless people with pets. “My Dog is My Home” is one such website that has projects in Los Angeles, CA; Bloomington, IN; Toledo, OH; and Philadelphia, PA. This organization also provides training and education with respect to homeless people with pets and wants to promote action to help support this population. Another agency “Pets for the Homeless” provides similar services and opportunities for assisting the homeless with a pet population. Other similar organizations include Bark Post and Homeless with Pets.

According to the US Department of Housing and Urban Development (2016), approximately 31,862 homeless are unaccompanied children and youth between the ages of 18 and 24 and another 3824 are children below the age of 18, with many of these youths staying in a “safe haven”; a particular type of homeless shelter for people with substance abuse or mental health difficulties. It has been estimated that approximately 2 million adolescents experience homelessness in a year and one quarter of these children are chronically homeless (Bender et al., 2007; Rew, 2000; Thompson et al., 2006). Priorities for these adolescents include the basic necessities of life—food, shelter, clothing, medical assistance, and mental health assistance. For many of these homeless, their companion pets, typically dogs, are considered their best friend and necessary to their survival. Many homeless youth have indicated that they do not think they would still be alive if it were not for their pets, that their pets help lessens loneliness, and compensate for a lack of human friendship (Bender et al., 2007; Berkoff, 2013; Rew, 2000; Thompson et al., 2006). Yet, this can be a problem since many shelters do not allow pets, and so frequently, these people choose to live on the streets rather than give up their pet. Irvine (2013) writes extensively on the importance of pets to homeless populations. Pets, while not often welcome in homeless shelters, serve as protectors, social connections, and sources of emotional support for people who are homeless. They often make choices to go without food or health care for themselves to care for their pets (Irvine, 2013; Thompson et al., 2006).

Some studies (Bender et al., 2007; Rew, 2000; Rew & Horner, 2003), looking at factors of loneliness, companion animals, and coping among homeless youth. Situations that evoke feelings of loneliness include the death of their animal companion and a lonely lifestyle. Pet-owning homeless adolescents were less likely to report on measures of loneliness (Purewal et al., 2017). Homeless youth identified two main strategies for coping with the loneliness, the first being with their friends and the second being with a companion dog. One factor that the homeless youth reported as a motivation for behaving responsibly was the need to take care of their companion dog (Bender et al., 2007; Rew, 2000; Rew & Horner, 2003).

There are many positive reasons for counseling homeless adolescents to maintain a relationship with their pet. Counselors can help homeless

adolescents to advocate for the necessity of having their pet in the shelter or keeping the pet when living on the street. Pets can help to relieve loneliness, reduce fear and depression, may serve as a motivator for being responsible, can provide body heat and emotional support, and may provide a level of security to the homeless adolescent. Counselors can also provide resources to support the pets of homeless adolescents (i.e., mobile vet services, pet food pantries, etc.).

SUMMARY

Even though many of the studies reported in the previous pages have limitations, overall it would appear that pets, particularly dogs and cats, can be helpful to adolescents throughout the stages of early, late, and emerging adulthood. Additionally, pets appear particularly helpful with at-risk populations and homeless adolescents. The research indicates that pets can assist with physical health, emotional health, social attachment, and illness. Pets also help with specific adolescent populations such as rural, homeless, adolescents with mental health issues, and with college students. We may not yet fully understand the power of the human-animal connection, but it appears to be strong, enduring, and supportive.

ADOLESCENCE AND PETS DURING THE COLLEGE YEARS

Each year, thousands of students head away to college or university; some students are returning to continue their studies and others are leaving home for the first time. For the fall of 2017 semester, it was estimated that approximately 20 million US students would be attending college (National Center for Education Statistics, 2017). While many of these students appear eager to move into this new era of their lives, some may be less enthusiastic. Nerves and fears arise at the thought of living someplace new, being around a large number of people, living with and meeting new people, and leaving behind the safety, security, and comfort of their high school friends and family members.

Leaving the known entity of home life can increase stress and anxiety in college students. While leaving family members can be difficult, many college students are even more concerned with leaving their pets behind. Commercial advertisements are increasingly showing the relationships between people and their pets. Recently, several commercials have highlighted the relationship between dogs and children who are growing up together. The IAMS pet food company produced a series of commercials ("A boy and his dog Duck") evolving from a young boy and his new puppy

running to and jumping into the car to the now grown boy and his aged dog needing encouragement to physically get into the car. This commercial exemplifies the longevity and closeness of relationships between children and their family pets. Yet another commercial, this one for the automobile company Subaru ("Moving Out"), shows a young boy packing up items from his room and placing them in the family car as his dog follows closely behind. As the commercial progresses, the young boy becomes an older teenager appearing to be leaving for college. He hugs his mom and dad and kneels down to pet his aging dog Moll—"See you later Moll." This scenario plays out across the continent each fall as students head off to university, leaving their families that often includes the family pet.

Between 2000 and 2014, the 18- to 24-year-old population, in the United States, rose from approximately 27.3 million to nearly 31.5 million (U.S. Department of Commerce, 2015). The increase in this demographic aligns with an increase in the number of students enrolling in higher education. It was estimated that 20.4 million students were expected to enroll in undergraduate programs for the fall of 2017 (NCES, 2017), up by over 5% between 2000 and 2016.

In the United States, the age group most likely to have a dog are the 18–24-year-olds (58%) followed by 25–54-year-olds (48%) (KCDogBlog, 2012). Over half of 35–44-year-olds claim to have a dog and the numbers are comparable for people with cats. One possible reason for the higher number of pets living with young families could be the perceived benefits of having pets in the household.

Many families choose to introduce pets to their children's lives when the children are of an age to take on some responsibilities (recommendation: age 5 and up due to social-emotional regulation concerns in younger children). The most common pets are dogs and cats (expected lifespan ranges 10–18 years and 14–20 years, respectively). Therefore, it is common for these relationships to exist into the college years. How these new college students deal with, and acknowledge, the loss/change of one of their closest relationships may impact their adjustments to college life.

Acknowledging that many college students are raised with pets can assist clinicians in understanding how and why students may be dealing with challenges in their lives. College students that have moved away from their families, and pets, may experience a greater amount of stress than college students without pets.

Students with pets are likely to have had established routines for caring for their pets at home. These routines might include feeding, walking, grooming, and so on. When students leave for college, they are saying goodbye to those responsibilities and that structure. They are also entrusting others to take over those responsibilities. Students may experience a reduced sense of industry, autonomy, imitative when they are forced to remove themselves as the pet's caretaker.

Pets also often serve as a bridge for children's social interactions or as icebreakers when meeting new people. When college students no longer have that social crutch of a pet they may feel that their support system has been removed and become more vulnerable to emotional events. This was the case for Jackson.

JACKSON'S STORY

Jackson entered college as a transfer student from a community college near his home. During his years at the community college, Jackson lived at home and cared for his several cats. His decision to attend university several hundred miles away from home came from a desire to escape a dangerous neighborhood environment that encouraged him to engage in drug and alcohol abuse.

The first year of Jackson's experience at the university was difficult. He would travel home each weekend to check on his pets and to ensure that they were being well taken care of during his absence. These trips home helped Jackson feel comfortable that his pets were being taken care of, but they also harmed Jackson's relationship with other students. His travels home meant that he could not engage in the social activities that his peers experienced on campus. This amount of traveling contributed to Jackson feeling isolated on campus and not included as a part of social groups. His ability to make friends, get involved in campus activities, and to maintain employment were all negatively impacted by his choice to travel home during weekends and school breaks.

The sense of grief that Jackson felt for, what he called, abandoning his pets was nearly unbearable for him. In conversations with Jackson, he expressed fear that his pets would not be "as loved" and cared for by his family. Jackson highly valued his awareness of his pets' individual likes and dislikes (types of treats, areas to be pet, etc.). He attempted to locate housing on or near campus that would allow him to bring his pets with him, but those options were not available and he continued traveling back home for a while. Unfortunately, being home on the weekends also provided Jake with the opportunity to "hang out" with the crowd he was trying to get away from.

Jackson gradually began using drugs while on campus, as well as when he was back home. Over time, Jackson stayed on campus more often and began detaching himself from his family. His drug and alcohol use increased, he talked less about his pets, and his level of depression increased. Jackson attended regular counseling sessions at the campus counseling center in an attempt to deal with his depression and social insecurities.

Jackson would also attend special pet therapy events on campus but remained distant and he did not engage much with the dogs or their

handlers. However, after talking with Jackson about his pets, we were able to bring a different experience to campus in hopes of connecting with Jackson. A local barn would bring two of their horses onto campus for the students to spend time with and learn how horses can assist people in a variety of ways. Jackson made it a point to visit with the horses each time they were on campus. He didn't present as very excited to be around the horses, rather he was very pensive and aloof. The horses were not so aloof and would approach Jackson, nose his hands into petting them, and vocalize quietly around him. Jackson seemed surprised by this level of attention from the horses and it broke down his hardened exterior slightly. This newly found openness allowed Jackson and his counselor to discuss his depression, drug use, and his expectations for college and life after college. They would attempt to schedule their sessions when the horses were on campus whenever possible.

It was hoped, with Jackson and all of the students visiting the pets, that the pets would serve as a social bridge for students. Bringing pets to campus was an activity that would bring like-minded individuals together. The idea is that if a student is visiting the pets they should have at least one thing in common with the other students who are visiting with the pets. This was an attempt to increase Jackson's social capital within his peer group.

Sadly, Jackson overdosed and passed away during his third year at college. Students requested that we bring the horses back for an impromptu memorial for Jackson the day after his death.

Discussion Questions

In a position to help students like Jackson, consider some of the warning signs of social isolation in college students. Do you believe that campus pet programs may help in such situations? What specific aspects of pet programs may have been utilized to help Jackson and students in similar situations?

For many students, the pain of leaving behind family and friends can appear to take a positive outlook. Students will pour themselves into their studies and focus almost exclusively on earning good grades and being involved in student groups. This hyper focus on studies can lead to social isolation and awkwardness. That was the experience that Kylie had at college.

KYLIE'S STORY

Kylie entered college as a high achieving student with high expectations for a successful academic experience. Earning high grades became her obsession at school and she focused almost solely on studying. Her grades

reflected the amount of energy she exerted and she was placed on the President's List every semester for her first 3 years at school.

During her second year, Kylie started seeing a counselor at school to help with issues of social anxiety and difficulties at home. She approached her academic adviser/faculty member with some of her concerns and informed the adviser of her attendance at the counseling sessions. They created a plan to attempt an increase in social interactions, including creating a calendar of on campus events that might align with Kylie's interest in art and music.

Upon returning for her junior year, Kylie informed her adviser that she had been hospitalized over the summer due to significant mental health difficulties. This knowledge brought more support services to the college for Kylie (increased counseling sessions, outside professional counselors in addition to the school counselors, and weekly check-ins with her academic adviser) eventually leading to the academic adviser attending the on-campus counseling sessions to support Kylie. Throughout these sessions, Kylie would often mention her pet cat back home. She would talk about how her cat, Evelyn, would sleep with her every night and would cuddle next to her every time she started to get upset. Eventually, Kylie admitted feeling that she had no one to truly confide in at school and that she counted on Evelyn to be her nonjudgmental ear for all the difficulties she was facing.

In consultation with Kylie's campus counselor, her faculty advisor began bringing her certified therapy cat to the counseling sessions. The cat initially explored the room and paid little attention to Kylie, who seemed to be disappointed with the lack of attention. We continued with the therapy session with Kylie and her counselor discussing how the weekend was when Kylie went back home for a visit. Kylie began discussing how she felt about her friends being away and unable to go out with her while she was home. With her legs bouncing in an effort to control her emotions, Kylie started to tremble as she discussed her weekend. Annabelle, the therapy cat, slowly walked over to the chair where Kylie was sitting and jumped up next to Kylie. Annabelle settled in next to Kylie's right thigh and began quietly purring. Kylie started to stroke Annabelle and continued with her counseling session.

This process occurred for the following five sessions. Annabelle would check out the room then settle in next to Kylie on their chair. It was observed that just before Kylie would start to cry or have a breakthrough, Annabelle would slowly and gently move her paw from the chair and place it on Kylie's leg. The counselor was able to capitalize on this new awareness and either probe Kylie's feelings more or de-escalate her emotions before they became too intense.

Kylie continued with her counseling sessions throughout her senior year, some with and some without Annabelle. She graduated, again on the President's List, with her family and several friends in attendance. She

still struggles with social isolation and difficulty in starting friendships but is doing so with the knowledge that she can take the initiative and positively engage with others.

Discussion Questions

Kylie had challenges adjusting to new environments and trusting people in these new environments. How might a member of the mental health profession support students struggling to make human connections on a college campus?

- Impact of leaving family members
  - Stronger sense of loss when leaving pet
  - Raised together
  - Caregiver for pet over years
- Adjusting to life without a pet
  - Identity changes from pet guardian to independent student in a new environment
  - Social crutch of having a pet is removed (possibly increasing social anxiety)
  - Lessening of responsibility to another being
  - Emotional connection to a trusted companion may be compromised (who can I talk to now?)

Students who attend college can be dealing with several psychological challenges that are very specific to the experience of leaving home. These challenges can be exemplified when the additional stressor of leaving pets behind is a part of the equation. Saying goodbye to pets can bring up extremely emotional reactions. Some students may ask themselves questions including:

- Who will now care for my pet?
- Will they take as good care of my pet as I did?
- Will they love my pet as much as I do?
- Will my pet remember me/still love me when I come home to visit?
- Will my pet die while I'm away at school?

These questions can overwhelm an 18-year-old who has spent their most formative years with their pet. Their pet has likely seen them through happiness and grief, love and lost, pain and celebrations. The two have shared life together for many, many years. They have shared things that no two others beings have shared, or will ever share. They have an unbreakable bond that is going to experience a significant change.

Some students may show no signs of difficulty in adjusting to life without their pets living with them. Others will experience significant challenges living without their pets. Studies have shown that exposing

students to pets can increase the mood of students and reduce anxiety in college students (Picard, 2015). Lavine (2013) found that students who had pets on campus with them were happier and healthier than students who did not live with pets on campus.

Some strategies that may be considered by colleges include:

- Establishing a volunteer program at a local shelter for students to complete service-related activities and get their "critter-fix."
- Creating a pet-therapy visiting team program. One example includes having specific teams visiting a specific dorm at the same time each week throughout the semester. This encourages the therapy team (dog and human) to establish relationships with the dorm residents.
- Some universities have certified or registered therapy teams available through a library-type loan program. Students, and staff, can schedule a 30-min block of time to spend with the dog/team.
- Many campuses bring dogs to campus as a stress relief activity near finals times. Consider expanding this type of program so that pets are available more regularly for students.
- Develop a program at the campus counseling session. One idea is to advertise a dog day or dog hours at the center. Students who are in need of pet interaction can attend these sessions but it also takes into account that not all students are comfortable around dogs.

Over 900 US colleges and universities have some form of pet therapy program on campus. This number is expected to grow as the beneficial aspects of human-animal interactions to college-aged students is further researched. As clinicians, including pet therapy programs in campus activities has the potential to provide client insights that may not be found otherwise. Appropriately established pet therapy programs can serve as a tremendous resource for students and staff that are facing challenging times. Whether reducing stress, serving as an indicator of anxiety, gathering groups of people together, or increasing mood, pets can have a positive impact on our college student population.

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