

# Canine-Assisted Mediation

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*This paper explores the potential of using therapy dogs in family law mediations. The author reviews literature underscoring the health benefits of therapy animals in medical and other stressful situations and considers the implications of this information for mediators, thereby bringing attention to the potential positive contribution dogs might play in the field of dispute resolution. The core thesis on the benefits of including dogs in the mediation process flows from existing literature indicating the positive effects that dogs can have on human health and quality of life. The author then supplies practical guidelines for how mediators might constructively and ethically incorporate Canine-Assisted Mediation (CAM) into the dispute resolution process in a way that safely and successfully meets the needs of the parties, the mediator, and the dog, with a view to promoting future application of and research into the effects of Animal-Assisted Intervention on humans' ability to resolve conflict.*

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I. INTRODUCTION

Studies support our intuitive notion that more intimate relationships produce more painful and destructive emotions upon dissolution.<sup>1</sup> A typical family law litigant faces wide-ranging emotions including anger, anxiety, disappointment, despair, embarrassment, fear, grief, hopelessness, pain, sadness, stress, and perhaps most of all, uncertainty. By the time a divorcing or separating couple first meets with a mediator, the parties can be physically and mentally exhausted. These heightened feelings can cloud their perspectives, interfere with their abilities to listen and communicate, as well as hinder their prospects for resolving disputes in a rational and collaborative manner. Emotions escalating to anger can hamper objectivity, cause a loss of trust in the other party, and lead to retaliatory instead of collaborative actions.<sup>2</sup> If left unresolved, “emotional residue may become the seeds of future conflict.”<sup>3</sup>

In the family law context, separations often bring about uncontrolled, intense emotional reactions driving conflict and affecting all parties involved. Although these reactions are “inherent in negotiation” and play a significant role in shaping its outcome, experience confirms that most disputes do resolve through negotiation.<sup>4</sup>

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1. See Judy A. Dabler, *A Comprehensive and Intensive Approach to Reconciling Marital Conflict*, PEACEMAKER MINISTRIES 1, 4 (2011) <https://peacewise.org.au/wpcontent/uploads/RMC-A-Comprehensive-and-Intensive-Approach-to-Reconciling-Marital-Conflict.pdf>.

2. See Robert S. Adler et al., *Emotions in Negotiation: How to Manage Fear and Anger*, 14 J. NEGOTIATION 161, 161–64 (1998).

3. Daniel L. Shapiro, *Emotions in Negotiation: Peril or Promise*, 87 MARQ. L. REV. 737, 744 (2003).

4. Delee Fromm, *Emotion in Negotiation*, in THE THEORY AND PRACTICE OF REPRESENTATIVE NEGOTIATION, 219 (2008).

Negotiation has been defined as “joint decision making between interdependent individuals with divergence of interests.”<sup>5</sup> The resolution process “occurs on cognitive, emotional, and behavioral dimensions.”<sup>6</sup> To achieve success in negotiation, therefore, mediators must possess the skills and tools to address and guide the parties’ emotions with a view toward a fair, reasonable, and satisfying resolution. While family law mediators are neither family counselors nor therapists, they must be aware of the parties’ emotions and conflict triggers if they are to effectively help disputants overcome emotional barriers and find common ground.

The long-term negative impact of marital dissolution also highlights the need for mediators to respond to marital conflict in a more comprehensive and non-traditional manner. To minimize the detrimental enduring consequences of separation, dispute resolution professionals should seek strategies to avoid barriers created by traditional litigation. To be effective, mediators must engage processes that promote constructive relationships. A properly designed mediation can be an empowering process that encourages productive relationships, particularly when it offers parties an opportunity for a more holistic and multidimensional framework for resolving disputes. By including tools and strategies for addressing clients’ physical, psychological, and social needs, a well-designed mediation process enhances the parties’ opportunity to address serious conflict that may be unresponsive to or, worse yet, heightened by litigation.

One type of intervention showing promise for dealing with the parties’ physical, emotional, and social needs is Animal-Assisted Intervention. This process purposely incorporates animals (typically dogs) within the process to assist parties to both cope effectively with their emotions and communicate effectually.

The notion that we can benefit from human-animal interaction emerged in an extensive body of work dating back to the 1970s. Researchers in disciplines like anthropology, occupational therapy, medicine, nursing, psychology, and sociology have investigated the effect of positive interactions between humans and companion animals

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5. Gerben A. Van Kleef et al., *The Interpersonal Effects of Emotions in Negotiations: A Motivated Information Processing Approach*, J. PERSONALITY & SOC. PSYCHOL. 510, 510 (2004).

6. Bernard Mayer, *THE DYNAMICS OF CONFLICT: A GUIDE TO ENGAGEMENT AND INTERVENTION* 124 (2d ed. 2012).

on health outcomes.<sup>7</sup> This research confirms wide-ranging and positive physical, mental, and social health effects and demonstrates real promise for the inclusion of complementary practices in mediation involving animals generally and dogs specifically.

This Article reviews the literature related to the effects of companion animals on human health and quality of life; explores some of the main theories explaining the benefits of Human-Animal Interactions and the implications of this information for mediators; and evaluates the efficacy of Animal-Assisted Intervention as a means of buffering the detrimental impacts of separation and facilitating the opportunity for spouses to respond to conflict in a more comprehensive, cooperative, and satisfying manner. This Article offers suggestions for future research and ways that mediators might ethically incorporate animal-assisted interventions into the mediation process in a way that safely and successfully meets the needs of the parties, the mediator, and the dog. This Article seeks to inspire more attention to the bonds between dogs and humans and to explore the potential for using dogs in mediation practice.

## II. DEFINITIONS

### A. *Human-Animal Interactions*

In this Article, “Human-Animal Interactions” refers to both non-professional (for example, pet ownership) and professional (for example, dog therapy) interactions between humans and animals.

### B. *Animal-Assisted Intervention*

Animal-Assisted Intervention is “any intervention that intentionally includes or incorporates animals as part of a therapeutic or ameliorative process or milieu.”<sup>8</sup> “Interaction can occur in different forms including contact, ownership, service animal programs, and planned interventions or therapy.”<sup>9</sup>

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7. See, e.g., Marian R. Banks & William A. Banks, *The Effects of Animal-Assisted Therapy on Loneliness in an Elderly Population in Long-Term Care Facilities*, 57 J. OF GERONTOLOGY 428, 428 (2002).

8. Katherine A. Kruger & James A. Serpell, *Animal-Assisted Interventions in Mental Health: Definitions and Theoretical Foundations*, in HANDBOOK ON ANIMAL-ASSISTED THERAPY: THEORETICAL FOUNDATIONS AND GUIDELINES FOR PRACTICE 25 (2d ed. 2006).

9. Chanelle Juanita Buckle, *Effects of an Animal Visitation Intervention on the Depression, Loneliness, and Quality of Life of Older People: A Randomised Controlled Study* (Dec. 2015) (unpublished M.A. thesis, Stellenbosch University).

### C. *Animal-Assisted Therapy*

Animal-Assisted Therapy is a subcategory of Animal-Assisted Interventions and is an:

umbrella term for diverse therapeutic approaches, used with people of all ages (from children to the elderly), in which an animal is an integral part of the treatment process. Animal-Assisted Therapy involves interactions in the therapy room between a client, an animal (usually a dog), and a therapist, with the aim of improving therapeutic outcomes.<sup>10</sup>

Typical dog therapy visits last 10–15 minutes. Therapy involves patients petting, playing with, or simply being in the presence of a trained and certified dog while the handler monitors the therapy dog, tends to its needs, answers dog-related questions, and ensures that infection control protocols are followed.<sup>11</sup>

### D. *Animal-Assisted Activities*

Animal-Assisted Activities, a subcategory of Animal-Assisted Intervention, “provide opportunities for therapeutic benefits through spontaneous interactions, but they do not constitute a targeted therapy, which involves the goal-directed treatment of a symptom or impairment.”<sup>12</sup>

### E. *Companion Animal*

Companion animals are “domesticated or domestic-bred animals whose physical, emotional, behavioral, and social needs can be readily met as companions in the home, or in close daily relationship with humans.”<sup>13</sup> Literature often presents this term as an interchangeable word for a pet. The American Society for the Prevention of Cruelty to Animals’ classification of companion animals includes dogs, cats, horses, rabbits, ferrets, birds, guinea pigs and select other small mammals, small reptiles and fish, and domestic-bred farm animals that may be kept legally and responsibly.<sup>14</sup>

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10. Sigal Zilcha-Mano et al., *Pet in the Therapy Room: An Attachment Perspective on Animal-Assisted Therapy*, 13(6) ATTACHMENT & HUM. DEV. 541, 541 (2011).

11. See Dawn A. Marcus, *The Science Behind Animal-Assisted Therapy*, 17(4) CURRENT PAIN & HEADACHE REPS 1, 1 (2013).

12. Marguerite O’Haire, *Companion Animals and Human Health: Benefits, Challenges, and the Road Ahead*, J. VETERINARY BEHAV.: CLINICAL APPLICATIONS & RES. 226, 229 (2010).

13. *The American Society for the Prevention of Cruelty to Animals*, ASPCA POLICY AND POSITION STATEMENTS (2017), <http://www.aspc.org/about-us/aspc-policy-and-position-statements/definition-companion-animal>.

14. *Id.*

### III. HISTORY OF HUMAN-ANIMAL INTERACTIONS AND ANIMAL-ASSISTED INTERVENTIONS

#### A. *Human-Animal Interactions*

Humans began forming bonds with animals in prehistoric times.<sup>15</sup> Fossil evidence from half a million years ago suggests an association between *Homo Erectus* and a canine-like species.<sup>16</sup> Over time, humans began domesticating animals through “an interactive process of mutual cooperation and coevolution based on a shared need for shelter, food, and protection.”<sup>17</sup> Wolves, the predecessors of domestic dogs, were one of the first wild animals to be domesticated.<sup>18</sup> The discovery of a buried woman with one arm around a wolf or dog puppy in modern Israel suggests that domestication first occurred 12,000 years ago.<sup>19</sup> The researchers who discovered the fossil claim that the burial arrangement proves that an “affectionate, rather than gastronomic,” relationship existed between the person and the animal.<sup>20</sup> Other scientists suggest that the companionship between humans and dogs began 30,000 years ago when Native Americans began domesticating dogs.<sup>21</sup>

Prehistoric humans benefited from their association with semi-tamed wolves because of wolves’ superior sensory systems. Their keen senses of hearing and smell benefited humans in their fishing and hunting activities, while at the same time served as a warning system against wild beasts and human intruders.<sup>22</sup> Selective breeding was likely automatic at first: “[w]ith the passing of generations, the two species co-evolved to communicate well with each other.”<sup>23</sup> “Dogs that were most attentive to the needs and feelings of their human companions got extra care and food, and were more likely to survive.”<sup>24</sup> Humans killed wolves that were overly aggressive or of

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15. See O’Haire, *supra* note 12, at 226.

16. See *id.*

17. Froma Walsh, *Human-Animal Bonds I: The Relational Significance of Companion Animals*, 48(4) *FAMILY PROCESS* 462, 463 (2009).

18. See Yuval Noah Harari, *SAPIENS: A BRIEF HISTORY OF HUMANKIND* 46 (2014).

19. See O’Haire, *supra* note 12, at 226.

20. *Id.*

21. See Ravmeet Ruby Bains, *The Healing Property of Nature and Animals* 1, 27 (Aug. 2015) (unpublished M.C. dissertation, City University of Seattle).

22. See Walsh, *supra* note 17, at 464.

23. Harari, *supra* note 18, at 46.

24. *Id.*

little value, thus retaining only wolves with desirable traits.<sup>25</sup> Eventually, the wolves' characteristics reflected the needs of their human companions.<sup>26</sup> Later, as human populations increased, people began trading dogs based on their traits, leading to yet further evolution.<sup>27</sup> As societies developed, people continued to breed dogs to meet their specific needs. These human-influenced modifications have resulted in over 500 officially recognized dog breeds.<sup>28</sup>

Today, more than ever, people use dogs where their abilities fall short. Seeing eye dogs help the visually impaired with mobility and self-sufficiency; hearing dogs alert their owners to sounds; service dogs assist adults facing physical disabilities with opening and shutting doors, turning lights on and off, and pushing buttons; and therapy dogs improve the quality of life of patients with chronic diseases like cancer, cardiovascular disease, diabetes, hypoglycaemia, and epilepsy.<sup>29</sup> When considering how well dogs assist us, we come to appreciate the adage "man's best friend."

## B. *Animal-Assisted Interventions*

The long history of Animal-Assisted Interventions can be traced back to the ninth century in Gheel, Belgium, where people used animals to provide care to disabled family members.<sup>30</sup> England's York Asylum began using animals to work with patients in the late 1700s.<sup>31</sup> The institution encouraged its patients to interact with resident chickens and rabbits.<sup>32</sup> By the nineteenth century, it was common for mental institutions in the United Kingdom to stock their grounds with domestic animals.<sup>33</sup> In 1859, Florence Nightingale commented that "a small pet is often an excellent companion for the sick or long chronic cases especially."<sup>34</sup> In 1867, epilepsy patients in

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25. See Robert K. Wayne, *The Evolution of Dogs from Wolves—Descendent of the Domestic Dog*, HISTORY OF EVOLUTION OF DOGS, <http://www.mans-bestfriend.org.uk/history-evolution-dogs.htm>.

26. See *id.*

27. See *id.*

28. *The History of the Dog*, (2017), <http://www.dog.com/dog-articles/the-history-of-the-dog>.

29. See Walsh, *supra* note 17, at 466.

30. See Michele L. Morrison, *Health Benefits of Animal-Assisted Interventions*, 12 COMPLEMENTARY HEALTH PRAC. L REV. 51, 52 (2007).

31. *Id.*

32. See Sarah J. Brodie & Francis C. Biley, *An Exploration of the Potential Benefits of Pet-facilitated Therapy*, 8 J. CLINICAL NURSING 329, 330 (1999).

33. See Morrison, *supra* note 30, at 52.

34. Joy Shiller, *Nightingale's Cats*, (2003), <http://www.countryjoe.com/nightingale/cats.htm>.



Bethel, Germany interacted with animals as part of their treatment.<sup>35</sup>

Toward the beginning of the twentieth century, the advent of industrialization, scientific medicine, and urbanization displaced the use of animals in hospitals, creating a disconnect between humans and nature.<sup>36</sup> It was not until 1944 that the first article relating to the benefits of companion animal ownership, *The Mental Hygiene of Owning a Dog*, was published.<sup>37</sup> Around the same time, Americans began employing animals as therapeutic agents at the Air Force Convalescent Hospital in Pawling, New York, where veterans were encouraged to work with animals at the center's farm.<sup>38</sup>

Medical professionals formally began reintroducing animals back into therapy in the early 1960s. In 1962, American psychologist Boris Levinson was the first credited with the official use of a dog in therapy.<sup>39</sup> Levinson began incorporating his dog, Jingles, in the treatment of his adolescent patients.<sup>40</sup> He described Jingles as a "co-therapist" who helped him assist withdrawn and uncommunicative patients, and found that his patients were more at ease and less guarded during therapy with Jingles. Levinson published his findings in *The Dog as a Co-therapist*.<sup>41</sup>

Since the early 1990s, researchers from several disciplines have studied the benefits of Human-Animal Interactions resulting from pet ownership and interactions with Companion Animals that are not pets. A variety of methodologies, including interviews, self-reported case studies, surveys, as well as psychological and physiological experimentations form the basis of this research.<sup>42</sup> Not surprisingly, the last twenty-five years have seen dramatic increases in the use of animals for therapeutic purposes. This is in due in large part to the

35. See Morrison, *supra* note 30, at 52.

36. See Joanne Vining, *The Connection to Other Animals and Caring for Nature*, 10 RES. HUM. ECOLOGY 87, 89 (2003).

37. See generally James H. S. Bossard, *The Mental Hygiene of Owning a Dog*, 28 MENTAL HYGIENE 60 (1944).

38. See F. Ellen Netting et al., *The Human-Animal Bond: Implications for Practice*, 32 SOC. WORK 60, 60 (1987).

39. See Amber M. Lange et al., *Is Counseling Going to the Dogs? An Exploratory Study Related to the Inclusion of an Animal in Group Counseling with Adolescents*, 2 J. CREATIVITY IN MENTAL HEALTH 17, 18 (2007).

40. See Buckle, *supra* note 9, at 38.

41. See generally Boris M. Levinson, *The Dog as a "Co-therapist"*, 46 MENTAL HYGIENE 59 (1962).

42. See Deborah L. Wells, *The Effects of Animals on Human Health and Well-Being*, 65 J. SOC. ISSUES 523, 524 (2009).

vast body of evidence confirming the physical, psychological, and social health benefits of human-animal interactions.<sup>43</sup> Today, therapists use dogs in treating the elderly, vulnerable children, patients with long-term physical or mental health challenges, prisoners, university students, and victims of crime.

The benefits of human-animal companionship may also be of significant facilitative value to those working in conflict resolution; however, despite the wealth of research confirming the benefits of Animal-Assisted Intervention on our well-being, there has been virtually no formal research into the potential benefits of Animal-Assisted Interventions in mediation. As such, conflict resolution professionals should examine how to incorporate dogs into the dispute resolution process to assist clients in navigating the stress and pain of marital separation.

#### IV. BENEFITS OF HUMAN-ANIMAL INTERACTIONS

##### A. *Physical Health Benefits*

Numerous studies confirm the positive impact of animals in general, and dogs in particular, on the short- and long-term physical health of humans.<sup>44</sup>

##### 1. *Decreased blood pressure and heart rate*

Research has shown a correlation among psychosocial stress, heart rate, and blood pressure.<sup>45</sup> Reduced heart rate and blood pressure have been associated with reduced stress, while increased heart rate and blood pressure have been associated with increased stress.<sup>46</sup> Research confirms that patients accompanied by dogs experience lower blood pressure and heart rate while exposed to a cognitive stressor and while recovering from a cognitive stressor.<sup>47</sup> For instance, Krause-Parello compared heart rate values during a forensic review process for two groups of children who had been sexually

43. See Buckle, *supra* note 9, at 40.

44. See *id.*

45. See Sajal Das & James H. O'Keefe, *Behavioral Cardiology: Recognizing and Addressing the Profound Impact of Psychosocial Stress on Cardiovascular Health*, 8 CURRENT ATHEROSCLEROSIS REP. 111, 111 (2006).

46. See Linda Handlin et al., *Short-Term Interaction between Dogs and Their Owners: Effects on Oxytocin, Cortisol, Insulin and Heart Rate—An Exploratory Study*, 24 ANTHROZOÖS 301, 301–03 (2011); Susan A. Everson et al., *Stress-Induced Blood Pressure Reactivity and Incident Stroke in Middle-Aged Men*, 32 STROKE 1263, 1263 (2001).

47. See Julia K. Vormbrock & John M. Grossberg, *Cardiovascular Effects of Human-Pet Dog Interactions*, J. BEHAV. MED. 509, 509 (1988); Erika Friedmann et al.,

abused.<sup>48</sup> One group of children had a certified therapy dog present during the interview, and the other did not. Changes in heart rate for the control group (with no dog present) during a forensic interview were significant depending on the type of sexual assault experienced. In contrast, researchers found no difference in heart rate despite the type of sexual assault the child experienced in the forensic interviews with the intervention group (with the dog present). The researchers suggested that “the presence of the canine in the forensic interview acted as a buffer or safeguard for the children when disclosing the details of sexual abuse.”<sup>49</sup> Significantly, the investigators further found that the children in the intervention group had lower heart rates at the start of the forensic interview compared to the control group, confirming that the therapy dog may have provided a calming effect.

Other research has shown that these positive benefits of Human-Animal Interaction can occur following as little as twelve-minute visits with therapy dogs.<sup>50</sup> One study examined the effect of the presence of a pet dog on children’s resting blood pressures and blood pressure responses to reading aloud. The presence of the dog resulted in lower blood pressures under both conditions. Moreover, the researchers found that introducing a dog to children at the beginning of the procedure rather than halfway through had a more pronounced positive effect on the subjects. The researchers speculated that the presence of the dog mitigated “the subjects’ perception of the experimenter and the environment by making both less threatening and friendlier, which led to a decrease in resting [blood pressure] and the [blood pressure] response to verbalization.”<sup>51</sup>

Experiments have further examined variations in the impact of Animal-Assisted Interaction while interacting with dogs visually, verbally, and tactually.<sup>52</sup> These studies confirm that the mere presence of a companion animal may affect one’s blood pressure and heart

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*Social Interaction and Blood Pressure: Influence of Animal Companions*, 171 J. NERVOUS & MENTAL DISEASE 461, 461 (1983); Judy L. Jenkins, *Physiological Effects of Petting a Companion Animal*, 58 PSYCHOL. REP. 21, 21 (1986); Lesley R. Demello, *The Effect of the Presence of a Companion-Animal on Physiological Changes Following the Termination of Cognitive Stressors*, 14 PSYCHOL. & HEALTH 859, 859 (1999).

48. See Cheryl A. Krause-Parello & Elsie E. Gulick, *Forensic Interviews for Child Sexual Abuse Allegations: An Investigation into the Effects of Animal-Assisted Intervention on Stress Biomarkers*, 24 J. CHILD SEXUAL ABUSE 873, 881 (2015).

49. *Id.* at 882.

50. Kathie M. Cole et al., *Animal-Assisted Therapy in Patients Hospitalized with Heart Failure*, 16 AM. J. CRITICAL CARE 575, 575 (2007).

51. Friedmann, *supra* note 47, at 464.

52. See Vormbrock, *supra* note 47, at 509.

rate.<sup>53</sup> They also show that regardless of a participant's past exposure to dogs, all three forms of interaction (visual, verbal, and tactile) can ameliorate cardiovascular activity, although the greatest positive effect comes predominantly through touch.<sup>54</sup> Significantly, researchers have also found that dogs can have a more profound impact on human cardiovascular activity than a human friend.<sup>55</sup> One study found that relative to the support of friends and spouses, the presence of a pet elicited significantly lower blood pressure and heart rate activity during exposure to a stress-inducing task.<sup>56</sup>

Researchers have attributed these results to the non-evaluative social support provided by dogs. Vormbrock commented that "[t]alking to a dog rather than to another person may be less cognitively threatening, and the person's [blood pressure] levels may therefore be lower."<sup>57</sup> She commented further:

If pets affect people's [blood pressure] predominantly in cognitive ways as nonthreatening, nonjudgmental companions, then pet interactions of any kind (visual, verbal, or tactile) and with almost any sort of pet should lead to lower cardiovascular arousal in the person than interactions with a person. The only requirement would be that the person perceive the pet as non-threatening, a perception that can be expected in people with either highly positive or neutral attitudes toward dogs.<sup>58</sup>

## 2. *Increased arterial oxygen saturation*

Orlandi et al. examined the impact of Animal-Assisted Activities on cancer patients requiring a long therapeutic journey including chemotherapy at a day hospital in Italy.<sup>59</sup> The study occurred over a twenty-five-week period. Researchers divided the patients into two groups that received chemotherapy with and without Animal-Assisted Therapy, respectively. The researchers found that the Animal-

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53. See *id.* at 510.

54. See *id.* at 515.

55. See Karen M. Allen et al., *Presence of Human Friends and Pet Dogs as Moderators of Autonomic Responses to Stress in Women*, 61(4) J. OF PERSONALITY & SOC. PSYCHOL. 582, 583 (1991).

56. See Karen M. Allen et al., *Cardiovascular Reactivity and the Presence of Pets, Friends, and Spouses: The Truth About Cats and Dogs*, 64(5) PSYCHOSOMATIC MED. 727, 727 (2002).

57. Vormbrock, *supra* note 47, at 509–10.

58. *Id.*

59. See generally Massimo Orlandi et al., *Pet Therapy Effects on Oncological Day Hospital Patients Undergoing Chemotherapy Treatment*, 27 ANTICANCER RES. 4301, 4302–03 (2007).

Assisted Activities group experienced significantly increased (healthier) levels of arterial oxygen saturation and a significant reduction in anxiety and depression.

### 3. *Decreased emotional pain*

Divorce, by its very nature, is highly emotional. For many, the emotional pain of separation can be intense and unbearable. High-conflict separations create emotional, financial, relational, and spiritual costs that can potentially span generations.<sup>60</sup> Divorcing couples report fewer constructive communications, more conflict, and more interaction avoidance than non-distressed or distressed couples.<sup>61</sup> Not surprisingly, remaining calm and collected following a marital separation can be difficult if not impossible. Divorce negotiations foster even stronger negative emotions. To complicate matters further, “emotions are contagious.”<sup>62</sup>

Whatever steps can be taken to buffer this pain during a mediation may help parties to more effectively focus on their interests and thus pave the way for more constructive negotiations. Mediators wishing to incorporate canines into their practice may be further informed by numerous studies confirming a positive correlation between canine visitation therapy and pain reduction.<sup>63</sup> Significantly, Braun et al. found that the pain reduction was four times greater for those undergoing Animal-Assisted Therapy, as compared to the control group that was asked to relax quietly for fifteen minutes. This pain reduction was “comparable to the use of oral acetaminophen with and without codeine in adults.”<sup>64</sup> Interestingly, some of these studies involved only brief periods (10–20 minutes) of interaction between the therapy dogs and research participants.<sup>65</sup>

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60. Dabler, *supra* note 1, at 1.

61. See Andrew Christensen & James L. Shenk, *Communication, Conflict, and Psychological Distance in Nondistressed, Clinic, and Divorcing Couples*, 59 J. OF CONSULTING & CLINICAL PSYCHOL. 458, 458–63 (1991).

62. Fromm, *supra* note 4, at 228.

63. See Elisa J. Sobo et al., *Canine Visitation (Pet) Therapy Pilot Data on Decreases in Child Pain Perception*, 24 J. OF HOLISTIC NURSING 51, 51–57 (2006); Carie Braun et al., *Animal-Assisted Therapy as a Pain Relief Intervention for Children*, 15 COMPLEMENTARY THERAPIES IN CLINICAL PRAC. 105, 105–09 (2009); Amanda B. Coakley & Ellen K. Mahoney, *Creating a Therapeutic and Healing Environment with a Pet Therapy Program*, 15 COMPLEMENTARY THERAPIES IN CLINICAL PRAC. 141, 141–46 (2009); Dawn A. Marcus et al., *Animal-Assisted Therapy at an Outpatient Pain Management Clinic*, 13 PAIN MED. 45, 45–57 (2012); Suzanne R. Engelman, *Palliative Care and Use of Animal-Assisted Therapy*, 67 OMEGA J. OF DEATH & DYING 63, 63–67 (2013).

64. Braun, *supra* note 63, at 107.

65. See *id.*; Coakley, *supra* note 63, at 143; Marcus, *supra* note 63, at 45.

Studies have offered different explanations for the buffering effect of dog therapy on perceived pain. Marcus reviewed possible biological explanations for the therapeutic benefits that occur during dog therapy visits.<sup>66</sup> He noted physiological changes have been identified in previous studies that support the subjective impressions of reduced distress, decreased pain, and mood enhancement.<sup>67</sup> In regard to decreased pain, he provided three explanations.<sup>68</sup> First, he pointed to research that identified certain physiological changes that occur in humans receiving therapy dog visits, including decreased catecholamine and increased endorphins, which are associated with decreased pain sensations.<sup>69</sup> He also offered possible scientific explanations for the empathic nature of a therapy dog's relationship with humans by noting the possible role of mirror neurons.<sup>70</sup> He posited that by observing a happy, calm, and relaxed dog, the observer will also feel happier, calmer, and more relaxed.<sup>71</sup> Marcus also noted that a dog's ability to identify and provide attention to humans in need "might be explained by chemical changes occurring as part of the human stress response and the olfactory perceptive power of dogs."<sup>72</sup> In support, Marcus pointed to anecdotal evidence showing that "dogs tend to seek out for their attention those individuals who are ill or in distress" when placed in a room with people.<sup>73</sup> He suggested that "[t]herapy dogs may also correctly identify people experiencing emotional distress due to chemical changes" that dogs detect and identify as abnormal.<sup>74</sup> Engelman concluded that "therapy dog[s] appeared to 'lighten the atmosphere' and bring a 'bit of home' and 'normalcy' to the healing environment of the hospital room; pain was often times [sic] reduced and affect was improved in patients."<sup>75</sup> Sobo et al. postulated that a possible mechanism behind the pain reduction might be that the dog "distract[ed] children from pain-related cognition and activated comforting thoughts regarding companionship or home."<sup>76</sup>

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66. Marcus, *supra* note 11, at 1–2.

67. *Id.* at 1.

68. *Id.*

69. *Id.*

70. *Id.*

71. *Id.*

72. *Id.* at 1–2.

73. *Id.* at 5.

74. *Id.*

75. Engelman, *supra* note 63, at 66.

76. Sobo, *supra* note 63, at 56.

## B. *Psychological Benefits*

Research has also confirmed the positive impacts dogs have on humans' psychological and social states, including reductions in levels of depression, loneliness, and anxiety.<sup>77</sup> This research has further confirmed that human-dog interaction can ameliorate the effects of stressful life events including old age, disease, and physical and mental threats.

### 1. *Decreased stress, depression, anger, and anxiety*

Studies show us that merely looking at an animal can reduce an individual's feelings of anxiousness and stress. Katcher et al. compared blood pressure as a physiological indicator of stress in subjects while they watched an aquarium with tropical fish, looked at a blank wall, or engaged in a mildly stressful task of reading aloud.<sup>78</sup> Their results indicated that watching the fish tank lowered the subjects' blood pressure and produced a state of relaxation, whereas the other two activities did not.<sup>79</sup> The researchers concluded that viewing animals can reduce anxiety and tension.<sup>80</sup> DeSchriver and Riddick found similar results.<sup>81</sup> They compared heart rate and muscle tension while subjects watched an aquarium, fish videotape, or placebo video. The results showed that the participants who watched the aquarium and fish video had a lower pulse rate and lower muscle tension than those who watched the placebo video. The mere presence of dogs, therefore, may help reduce anxiety and stress levels in humans by reducing blood pressure, heart rate, and muscle tension.

Interestingly, studies have also shown that the presence of an animal can change one's subconscious perception of a scene. In these studies, researchers presented participants with two sets of photos of people in a natural environment. The photos were identical except for the presence or absence of an animal. The participants were asked to describe the people in the photos. The study participants consistently described people in scenes with animals as friendlier, happier, and

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77. See Wells, *supra* note 42, at 527.

78. See Aaron H. Katcher et al., *NEW PERSP. ON OUR LIVES WITH COMPANION ANIMALS* 351–59 (Aaron H. Katcher & Alan M. Beck eds., 1983).

79. *Id.* at 351.

80. *Id.*

81. See Mary M. DeSchriver & Carol C. Riddick, *Effects of Watching Aquariums on Elders' Stress*, 4 *ANTHROZOËS* 44, 44–48 (1990).

less threatening than the same individuals in scenes without animals, causing researchers to conclude that people “perceive situations as less stressful and are able to react more calmly” when an animal is present.<sup>82</sup>

Crowley-Robinson et al. conducted a longitudinal study spanning 23 months to determine the effect of a resident dog and a visiting dog on the tension, depression, anger, vigour, fatigue, and confusion scores of elderly nursing home residents.<sup>83</sup> The subject group comprised 95 elderly residents residing in three different nursing homes.<sup>84</sup> One of the homes had a resident dog, one had a visiting dog, and the other (control group) had no resident or visiting dog but was visited by the researcher at each of the assessment periods.<sup>85</sup> There was a trend for reduced tension in all three homes, but the residents living with a resident dog showed a significant decrease in tension over the assessment period compared to the residents in the other two homes.<sup>86</sup> With respect to depression and anger, the researchers found significant improvement in all three groups, and in particular, in the resident dog and control groups, indicating that a visiting person had a similar positive effect as a resident dog.<sup>87</sup> Regarding confusion, the researchers found that the resident and visiting dog groups demonstrated significantly lower levels of confusion compared to the control group.<sup>88</sup> These findings led researchers to conclude that “[a]nimals may play a role in helping residents adjust to their surrounding by providing a link with their prior home life.”<sup>89</sup>

Numerous studies have also examined the ameliorating effect of Animal-Assisted Therapy on anxiety levels of people exposed to stressful life events. Barker and Dawson examined the effect of Animal-Assisted Therapy on the anxiety levels of 230 hospitalized psychiatric patients.<sup>90</sup> The intervention consisted of a pre and post-treatment crossover study design that compared the effects of a single Animal-Assisted Therapy session with those of a single regularly

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82. O'Haire, *supra* note 12, at 228.

83. See Patricia Crowley-Robinson et al., *A Long-Term Study of Elderly People in Nursing Homes with Visiting and Resident Dogs*, 47 *APPLIED ANIMAL BEHAV. SCI.* 137, 137-48 (1996).

84. *Id.* at 137.

85. *Id.*

86. *Id.*

87. *Id.*

88. *Id.*

89. *Id.* at 147.

90. See Sandra B. Barker & Kathryn S. Dawson, *The Effects of Animal-Assisted Therapy on Anxiety Ratings of Hospitalized Psychiatric Patients*, 49 *PSYCHIATRIC SERVS.* 797, 797-801 (1998).



scheduled therapeutic recreation session. The Animal-Assisted Intervention was approximately thirty minutes and consisted of group interaction with a therapy dog and its owner. The researchers found that Animal-Assisted Therapy resulted in statistically significant reductions in anxiety in all patients with mood disorders and other psychotic disorders, while routine therapeutic sessions only resulted in decreased anxiety for those with mood disorders.<sup>91</sup>

Shiloh et al. examined the effect of petting a dog on the anxiety levels of fifty-eight non-clinical participants who were exposed to a tarantula spider (a stress-provoking exercise), which subjects were told they might be asked to hold.<sup>92</sup> The researchers randomly assigned the participants into one of five groups: petting a rabbit, a turtle, a toy rabbit, a toy turtle, or no animal (the control group). The researchers found that subjects who pet animals, whether they be rabbits or turtles, displayed less anxiety about holding the spider than those who did not. Significantly, the researchers concluded that the stress-reducing effect applied to all subjects, including those who were not animal lovers.<sup>93</sup>

Barker et al. investigated self-reported anxiety in psychiatric patients prior to electroconvulsive therapy.<sup>94</sup> One group interacted with a therapy dog for fifteen minutes while the other group read magazines. The group that interacted with an animal reported significantly less anxiety and fear.<sup>95</sup>

Cole et al. reviewed the effects of a twelve-minute dog visit on adult patients hospitalized due to heart failure.<sup>96</sup> The study found that a twelve-minute visit with a dog, versus without a dog, was more effective in reducing anxiety in the patients.<sup>97</sup>

Perkins et al. reviewed nine studies regarding dog therapy for older people living with dementia and living in residential aged care facilities.<sup>98</sup> Despite the methodological variability between the studies, Perkins and his team found that dog therapy was beneficial for

91. *Id.* at 797.

92. See Shoshana Shiloh et al., *Reduction of State-Anxiety by Petting Animals in a Controlled Laboratory Experiment*, 16 ANXIETY, STRESS, & COPING 387, 387–95 (2003).

93. *Id.* at 387.

94. See Sandra B. Barker et al., *Effects of Animal-Assisted Therapy on Patients' Anxiety, Fear, and Depression Before ECT*, 19 THE J. OF ECT 38, 38–44 (2003).

95. *Id.* at 38.

96. See Cole et al., *supra* note 50, at 575.

97. *Id.*

98. See Jacqueline Perkins et al., *Dog-Assisted Therapy for Older People with Dementia: A Review*, 27 AUSTRALASIAN J. ON AGEING 177, 177–82 (2008).

people with dementia.<sup>99</sup> They noted that the most frequently reported findings were an increase in social behavior (despite the severity of dementia) and a decrease in agitated behaviour during contact with a dog.

Hennemann et al. researched whether dogs had anxiety and stress-reducing effects during traumatic stressors.<sup>100</sup> Their subjects included eighty healthy females. The researchers exposed each of the participants to a traumatic video clip but assigned the participants to one of four conditions. One group watched the film with a friendly human companion, one group watched the film with a dog, one group watched the film with a toy dog, and one group watched the video alone. The “dog group” reported less anxiety and less negative affect than the “toy dog group” and “alone group.”<sup>101</sup>

## 2. *Improved positive emotions*

Research indicates that Animal-Assisted Interaction may positively correlate with mood benefits in select samples. Van Houtte and Jarvis examined the role of pets in preadolescent psychosocial development.<sup>102</sup> Their sample consisted of 130 third through sixth graders from a variety of socioeconomic backgrounds. The participants’ ages varied from eight to thirteen years old. Some of the students were pet owners, and some were not. The study consisted of a series of questionnaires designed to assess background, autonomy, self-concept, self-esteem, and attachment to animals. The study revealed that pet ownership increased autonomy, self-concept, and self-esteem in several of the children.<sup>103</sup> The positive influence of pets on self-esteem led the researchers to comment that “the use of pets as a source of support in times of stress, for individuals with lowered self-concept and self-esteem may be an appropriate and significant intervention strategy.”<sup>104</sup> Although this research looked at the impact of pet ownership, the researchers also noted that the results of their study did not indicate that pet owners were more attached to animals than non-pet owners, leading the researchers to conclude that “attachment

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99. *Id.* at 177.

100. See Johanna Lass-Hennemann et al., *Presence of a Dog Reduces Subjective but not Physiological Stress Responses to an Analog Trauma*, 5 FRONTIERS IN PSYCHOL. 1, 1–7 (2014).

101. *Id.* at 1.

102. See Beth A. Van Houtte & Patricia A. Jarvis, *The Role of Pets in Preadolescent Psychosocial Development*, 16 J. OF APPLIED DEVELOPMENTAL PSYCHOL. 463, 463–79 (1995).

103. *Id.* at 463.

104. *Id.* at 477.

to animals is therefore, not dependent upon owning a pet. An individual without a pet is just as likely to feel positive about animals as is a person with a pet.”<sup>105</sup>

Marr et al. investigated the effect of Animal-Assisted Therapy on sixty-nine male and female psychiatric patients.<sup>106</sup> The participants were randomized to either an animal-assisted psychiatric rehabilitation group or a similarly conducted group without Animal-Assisted Therapy to determine if animals can improve prosocial behaviours. The researchers found that by the end of the study, participants who worked with dogs were “significantly more interactive with other patients, scored higher on measures of smiles and pleasure, were more sociable and helpful with others, and were more active and responsive to surroundings.”<sup>107</sup>

Kaminski et al. compared the effect of dog and play therapy on seventy children hospitalized for a variety of reasons, including hematological disorders, cystic fibrosis, diabetes, and transplants.<sup>108</sup> The researchers measured self-reported mood, displayed affect, amount of touch, heart rate, blood pressure, and salivary cortisol. While the physiological results were not significantly different between the two groups, the researchers did find that the dog-assisted therapy facilitated mood enhancement and that both children and their parents viewed pet therapy as a positive experience.<sup>109</sup> The researchers also opined that dog-assisted intervention might have helped in enhancing mood by promoting normalcy for the participants while in an unfamiliar setting.

Prothmann et al. investigated the possible influences of dog-assisted therapy on the state of mind of young people undergoing inpatient psychiatric treatment.<sup>110</sup> Participants included 100 children and adolescents aged eleven to twenty. Sixty-one of the subjects participated in sessions with a certified therapy dog, and thirty-nine of the subjects did not receive dog-assisted therapy sessions. The researchers found that “the presence of a dog increased to a large extent the alertness and the attention of the child, caused more

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105. *Id.*

106. See Carolyn A. Marr et al., *Animal-Assisted Therapy in Psychiatric Rehabilitation*, 13 *ANTHROZOÏS* 43, 43–47 (2015).

107. *Id.* at 43.

108. See Mary Kaminski et al., *Play and Pets: The Physical and Emotional Impact of Child-Life and Pet Therapy on Hospitalized Children*, 31 *CHILD. HEALTH CARE* 321, 321–35 (2002).

109. *Id.* at 321.

110. See Anke Prothmann et al., *Dogs in Child Psychotherapy: Effects on State of Mind*, 19 *ANTHROZOÏS* 265, 265–77 (2006).

openness and desire for social contact and exchange, promoted the perception of healthy and vital factors, and enabled the child to become psychologically more well-balanced.”<sup>111</sup> The researchers also found that “[t]hese effects were stronger the worse the child or adolescent felt before the contact with the dog.”<sup>112</sup> Significantly, the researchers also concluded that “[n]o disorder was unaffected by the influence of the dog.”<sup>113</sup> Further, they noted that “[it] seems that situation-related anxiety and fear decrease, allowing the patient to feel secure and cared for in the clinical environment.”<sup>114</sup>

Lange et al. assessed the effect of therapy dogs in an anger management group for adolescents.<sup>115</sup> The researchers commented that the benefits identified in the interview included calming effects, humor relief, safety in disclosing, experiences of empathy, and motivation for attending sessions.<sup>116</sup>

Coakley and Mahoney found that hospital patients participating in an animal therapy program involving dog visits experienced significant decreases in pain, respiratory rate, and negative mood state and a substantial increase in perceived energy level.<sup>117</sup> The data collected at the end of the dog therapy visit indicated that the participants felt more calm, relaxed, engaged, and cheerful.

Marcus et al. looked at self-reported pain, fatigue, and emotional distress before and after therapy dog visits during waiting room time in patients at an outpatient pain management clinic.<sup>118</sup> The study showed that therapy dog visits correlated with an improvement of emotional distress and feelings of well-being in the patients and the family and friends accompanying patients to their appointments.

Given that a mediator’s goals include engaging participants in the mediation process, the presence of a therapy animal appears to be a positive factor in achieving that objective.

### 3. *Reduced loneliness*

Research confirms a correlation between Animal-Assisted Intervention and reduced feelings of loneliness. Banks and Banks

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111. *Id.* at 275.

112. *Id.*

113. *Id.*

114. *Id.*

115. *See* Lange, *supra* note 39, at 17.

116. *Id.* at 27.

117. *See* Amanda B. Coakley & Ellen K. Mahoney, *Creating a Therapeutic and Healing Environment with a Pet Therapy Program*, 15 *COMPLEMENTARY THERAPIES IN CLINICAL PRAC.* 141, 141 (2009).

118. *See* Marcus, *supra* note 11, at 1.

researched the effects of Animal-Assisted Therapy on loneliness in an elderly population in three privately owned long-term care facilities in southern Mississippi.<sup>119</sup> The research showed that one thirty-minute session per week of Animal-Assisted Therapy was effective in reducing loneliness to a statistically significant degree. In this study, some of the participants received Animal-Assisted Therapy on an individual basis, while others received Animal-Assisted Therapy in a group environment.<sup>120</sup> The effect of Animal-Assisted Therapy was even stronger with individual dog visits than with group dog visits. More recently, Vrbanac et al. evaluated the effects of dog companionship on the perception of loneliness in geriatric nursing home residents.<sup>121</sup> During a six-month period, twenty-one residents participated in a ninety-minute weekly dog companionship visit. During the visits, participants had the opportunity to interact with the dogs through touch, play, walking, and verbal communication. The researchers found that dog-assisted therapy reduced the patients' perception of loneliness.<sup>122</sup>

#### 4. *Improved learning*

Several studies have provided indirect evidence that Animal-Assisted Intervention may positively affect the preconditions for learning. While most of these studies are limited to studies of children, they do provide indirect evidence to suggest that dog-assisted interaction might help promote attention, concentration, relaxation, and motivation, which may, of course, foster more measured and productive negotiations.<sup>123</sup>

For example, Kotrschal and Ortbauer found that children paid more attention to their teacher when a dog was present in the class.<sup>124</sup> Gee et al. found that developmentally delayed and normally developed children all performed faster (and with the same accuracy)

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119. See Banks, *supra* note 7, at 428.

120. See *id.*

121. See Zoran Vrbanac et al., *Animal-Assisted Therapy and Perception of Loneliness in Geriatric Nursing Home Residents*, 37 COLLEGIUM ANTHROPOLOGICUM 973, 973 (2013).

122. *Id.*

123. See Andrea Beetzl et al., *Psychosocial and Psychophysiological Effects of Human-Animal Interactions: the Possible Role of Oxytocin*, FRONTIERS IN PSYCHOL. 1, 10 (2012).

124. See Kurt Kotrschal & Brita Ortbauer, *Behavioral Effects of the Presence of a Dog in a Classroom*, 16 ANTHROZOÖS 147, 147 (2015).

when a dog was present than without a dog.<sup>125</sup> The authors suggested that dogs served as motivators by increasing relaxation and reducing stress during the task. They found that preschool students followed instructions respecting an imitation task better while in the presence of a dog than while in the presence of a toy dog or human.<sup>126</sup> Gee et al. additionally found that preschool students required fewer prompts and had better concentration performing a task while in the presence of a dog than while in the presence of a human.<sup>127</sup> Another study found that preschool students made fewer mistakes while performing a task in the presence of a live dog than while in the presence of a stuffed dog or human.<sup>128</sup>

### C. *Social Benefits*

In addition to the many proven physical and psychological benefits of interaction with dogs, social interaction among humans is also enriched by the presence of dogs. Research confirms that dog-assisted interactions can help encourage positive social interactions and communications while reducing aggression by providing a form of “social lubrication.”<sup>129</sup> Stefanini et al. postulated that Animal-Assisted Therapy may “provide patients with an opportunity to learn to express and comprehend non-verbal language, thus leading to verbal and emotional comprehension and expression.”<sup>130</sup>

As Buckle noted, “social support derived from social relationships can buffer people against the health consequences of life stress and protect those in crisis from pathological states such as anxiety and depression.”<sup>131</sup> Studies have shown that perceived social support is also associated with a lower reactivity to mental stress, better task

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125. See Nancy R. Gee et al., *The Role of Therapy Dogs in Speed and Accuracy to Complete Motor Skills Tasks for Preschool Children*, 20 ANTHROZOÏS 375, 375 (2007).

126. See Nancy R. Gee et al., *Preschoolers' Adherence to Instructions as a Function of Presence of a Dog and Motor Skills Task*, 22 ANTHROZOÏS 267, 267 (2009).

127. See Nancy R. Gee et al., *Preschool Children Require Fewer Instructional Prompts to Perform a Memory Task in the Presence of a Dog*, 23 ANTHROZOÏS 173, 173 (2010).

128. See Nancy R. Gee et al., *Preschoolers Make Fewer Errors on an Object Categorization Task in the Presence of a Dog*, 23 ANTHROZOÏS 223, 223 (2010).

129. Erika Friedmann & Sue Thomas, *Health Benefits of Pets for Families*, 8 MARRIAGE & FAM. REV. 191, 191 (1985).

130. Maria Cristina Stefaninia et al., *The Effect of Animal-Assisted Therapy on Emotional and Behavioral Symptoms in Children and Adolescents Hospitalized for Acute Mental Disorders*, 8 EUR. J. OF INTEGRATIVE MED. 81, 87 (2016).

131. Buckle, *supra* note 9, at 23.

performance, reduced risks of mortality, better adjustment to bereavement, and faster recovery from illness.<sup>132</sup>

Several studies have looked at the use of dogs as catalysts for improved social interaction. Fick conducted a study to determine the effect of dog presence on the frequency and types of social interactions among nursing home residents.<sup>133</sup> He evaluated the behavior of thirty-six male participants under two conditions, dog present and dog absent. He noted that verbal communications between the residents significantly increased while participants were in the presence of the dog. Fick stated “that the presence of a dog stimulated interpersonal communication skills among older adults during a verbal interaction group.”<sup>134</sup> Fick explained these results by noting that “the presence of the dog provided a comfortable environment that was conducive to the therapeutic goal of facilitating social interactions within the group.”<sup>135</sup> Fick commented further that “the presentation of a dog at the beginning of a verbal interaction group might serve as a transition into an activity group in which learning occurred in a comfortable environment to make the activity more meaningful to members.”<sup>136</sup>

Bernstein et al. conducted a study at two long-term care facilities to compare the effectiveness of Animal-Assisted Therapy with Non-Animal Therapy at providing social stimulation.<sup>137</sup> The researchers found that the residents who had taken part in Animal-Assisted Therapy were more likely to initiate communications and participate in longer and higher quality interactions, particularly when the animal was present.

Martin and Farnum evaluated the effects of human-dog interaction on children with pervasive developmental disorders, which are

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132. See, e.g., Stephen J. Lepore et al., *Social Support Lowers Cardiovascular Reactivity to an Acute Stressor*, 55 *PSYCHOSOMATIC MED.* 518, 522 (1993); Karen Allen et al., *Pet Ownership, but not ACE Inhibitor Therapy, Blunts Home Blood Pressure Responses to Mental Stress*, 38 *HYPERTENSION* 815, 817 (2001); Julianne Holt-Lunstad et al., *Social Relationships and Mortality Risk: a Meta-Analytic Review*, *PLoS MED.* 1, 14 (2010); Thomas A. Glass et al., *Impact of Social Support on Outcome in First Stroke*, 24 *STROKE* 64, 64 (1993).

133. See Katharine M. Fick, *The Influence of an Animal on Social Interactions of Nursing Home Residents in a Group Setting*, 47 *AM. J. OF OCCUPATIONAL THERAPY* 529, 529 (1993).

134. *Id.* at 533.

135. *Id.* at 530.

136. *Id.* at 533.

137. See P. L. Bernstein et al., *Animal-Assisted Therapy Enhances Resident Social Interaction and Initiation in Long-Term Care Facilities*, 13 *ANTHROZOÖS* 213, 213 (2000).

characterized by a lack of social communication.<sup>138</sup> The researchers examined behavioral and verbal dimensions by comparing the children's interactions with two other conditions, a ball and a stuffed dog. The children exposed to the therapy dog "laughed more and gave treats more often in the dog condition, implying a happier, more playful mood and an increase in energy."<sup>139</sup> These children were also "more likely to talk to the dog, initiating numerous conversations and exchanges."<sup>140</sup> Furthermore, "[t]hey were more likely to engage the therapist in discussions regarding the dog than discussions regarding the ball."<sup>141</sup> The children were more appropriately focused and "spoke less about topics unrelated to the therapeutic protocol."<sup>142</sup> The children "were also more apt to agree to a request from the therapist" and were "less inclined to disregard questions from the therapist by talking about unrelated subjects."<sup>143</sup> The researchers noted that animals may act as "transitional objects," allowing children to first bond with the dogs and then extend these ties to humans. Based on these findings, the researchers concluded that "using a therapy dog may increase meaningful, focused discussions."<sup>144</sup>

Kotrschal and Orbauer examined the influence of dogs on twenty-four children at an elementary school in Vienna, most of whom came from first-year immigrant families.<sup>145</sup> As dogs were introduced into the classroom, researchers observed the children's social reactions. Although the children expressed significant individual differences in their interest in the dogs, the researchers found that the mere presence of dogs had a significant positive effect on their socialization. The children "became socially more homogenous due to decreased behavioral extremes, such as aggressiveness and hyperactivity; also, formerly withdrawn individuals became socially more integrated."<sup>146</sup> Additionally, the dogs "influenced more intense communication between children and between child and teacher."<sup>147</sup>

Wells studied the behavior of 1,800 pedestrians approaching a female experimenter while in the presence of a Labrador retriever

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138. See Francois Martin & Jennifer Farnum, *Animal-Assisted Therapy for Children With Pervasive Developmental Disorders*, 24 W. J. OF NURSING RES. 657, 657 (2002).

139. *Id.* at 667.

140. *Id.*

141. *Id.*

142. *Id.*

143. *Id.*

144. *Id.*

145. See Kotrschal, *supra* note 101, at 147.

146. *Id.*

147. *Id.* at 155.



pup, a Labrador adult, a Rottweiler adult, a teddy bear, a potted plant, and while alone.<sup>148</sup> The study found that more people ignored the experimenter when she was alone or with the teddy bear or plant than when she was walking a dog. The researchers concluded that dogs can facilitate social interaction between adults better than other accompaniments.

Anderson and Olson concluded that the presence of the dog in an elementary school over a period of eight weeks promoted emotional stability and positive attitude toward school, helped prevent and deescalate emotional crises, and supported the children's learning about responsibility, empathy, and respect.<sup>149</sup> Moreover, the researchers determined that all participants in the study "generalized their lessons on respect, responsibility, and empathy to their relationships with classroom peers."<sup>150</sup>

Schneider and Harley found that college students reported more satisfaction with therapists with a dog present.<sup>151</sup> These same students also demonstrated more willingness to disclose personal information.

Fournier et al. evaluated the effects of a Human-Animal Interaction program involving dogs on the behavior of inmates.<sup>152</sup> Measures included frequency of institutional infractions, treatment level, and social skills. Researchers found statistically significant improvements in each of these measures in comparison to the control group.<sup>153</sup> In measuring social skills, the researchers looked at "social sensitivity" which they defined as "the ability to interpret verbal communication from others and sensitivity to norms governing appropriate social behavior."<sup>154</sup>

Balluerka et al. examined the influence of Animal-Assisted Psychotherapy on the psychosocial adaptation of sixty-three adolescents

148. See Deborah L. Wells, *The Facilitation of Social Interactions by Domestic Dogs*, 17 ANTHROZOÏS 340, 340 (2004).

149. See Katherine L. Anderson & Myrna R. Olson, *The Value of a Dog in a Classroom of Children with Severe Emotional Disorders*, 19 ANTHROZOÏS 35, 35 (2006).

150. *Id.* at 47.

151. See Margaret S. Schneider & Lorah P. Harley, *How Dogs Influence the Evaluation of Psychotherapists*, 19 ANTHROZOÏS 128, 128 (2006).

152. See Angela F. Fournier et al., *Human-Animal Interaction in a Prison Setting: Impact on Criminal Behavior, Treatment Progress, and Social Skills*, 16 BEHAV. & SOC. ISSUES 89, 89 (2007).

153. *Id.*

154. *Id.* at 99.

in a residential care home suffering from traumatic childhood experiences.<sup>155</sup> The participants were divided into two groups, where only one group underwent Animal-Assisted Psychotherapy. Adolescents who experienced Animal-Assisted Psychotherapy “showed a higher school adjustment than those who did not.”<sup>156</sup> The students’ teachers also found that these students made progress in their adjustment “as they showed greater motivation and increased attention toward classroom learning. Furthermore, compared with controls, members of the treatment group scored higher on adaptive skills at school, with improved scores on social skills for interacting with peers and teachers and on skills needed to work within a group.”<sup>157</sup>

Researchers suggested “that the presence of pets provided the kind of nonevaluative social support that is critical to buffering physiological responses to stress.”<sup>158</sup> These same researchers propose that the “positive feeling states” associated with pets may help individuals to adapt to stress by helping them see what was important and allowing them to put things in perspective.<sup>159</sup> Consequently, the inclusion of a therapy dog during mediation may help to enhance communication between the parties particularly for those not having the social support of family or close friends. By increasing social interaction and improving the social climate, dogs might also serve as an ideal adjunct to mediation.

#### V. IMPACT OF ANIMAL-ASSISTED INTERACTIONS ON NEUROPHYSIOLOGICAL STRESS MARKERS

As noted previously, the presence of friendly animals, both familiar or unfamiliar, can reduce heart rate and blood pressure or buffer increases in these parameters in anticipation of a stressor. An understanding of these physiological changes during positive interactions between humans and dogs may contribute to our better understanding of how dogs might be used to deescalate emotions and facilitate healthier communications during mediations. Numerous studies have looked at the impact of Animal-Assisted Interactions on the hormonal indicators of stress including cortisol, oxytocin, epinephrine,

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155. See Nekane Balluerka et al., *Promoting Psychosocial Adaptation of Youths in Residential Care through Animal-Assisted Psychotherapy*, 50 CHILD ABUSE & NEGLECT 193, 193 (2015).

156. *Id.* at 202.

157. *Id.*

158. Allen, *supra* note 109, at 818.

159. *Id.*

and norepinephrine.<sup>160</sup> Understanding how the presence of dogs might influence these chemicals provides the mediator with further insight respecting the appropriate use of dogs as a means of helping parties to cope with their stress and communicate effectively.

#### A. *Decreases in Cortisol*

Cortisol is a stress hormone made in the adrenal gland that can be measured in saliva samples.<sup>161</sup> Because most cells in the body have cortisol receptors, it affects many functions in the body. Cortisol helps control sugar levels, regulates metabolism, contributes to reducing inflammation, and assists with memory formulation. It also controls salt and water balance and helps control blood pressure. In women, it supports the development of the fetus during pregnancy.<sup>162</sup> As a stress biomarker indicator, studies show that cortisol increases in response to stressful events.<sup>163</sup> Consequently, researchers often measure cortisol levels to assess potential benefits of Animal-Assisted Interactions. Researchers typically interpret decreases in plasma cortisol concentrations as confirming the calming effect of the animal on their human companions.

Several studies have shown that short-term positive human-dog interaction can result in statistically significant declines in plasma cortisol in humans. Barker et al. measured stress in twenty healthcare professionals following interaction with a therapy dog.<sup>164</sup> The researchers determined stress levels by measuring serum cortisol, epinephrine, and norepinephrine at different times. The study suggested stress reduction determined by significant reductions of cortisol in the subjects with as little as five minutes of interaction with the dogs.

Beetz et al. found that children presented with a social stress test had significantly lower cortisol levels when supported by a real dog than when supported by a toy dog or friendly human. This same

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160. See J.S. Odendaal & R.A. Meintjes, *Neurophysiological Correlates of Affiliative Behaviour Between Humans and Dogs*, 165 *THE VETERINARY J.* 296, 296–300 (2003).

161. See Clemens Kirschbaum & Dirk Hellhammer, *Salivary cortisol in psychobiological research: an overview*, 22 *NEUROPSYCHOBIOLOGY*, 150, 150 (1989).

162. See *What Does Cortisol Do?*, HORMONE HEALTH NETWORK, <http://www.hormone.org/hormones-and-health/what-do-hormones-do/cortisol>.

163. See Krause-Parello, *supra* note 48, at 881–82.

164. See Sandra B. Barker et al., *Measuring Stress and Immune Response in Healthcare Professionals Following Interaction with a Therapy Dog: A Pilot Study*, 96 *PSYCHOL. REP.* 713, 714 (2005).

study showed that the more the children stroked the dog, the more significant the drop in cortisol.<sup>165</sup>

Polheber and Matchock examined the effects of social support on salivary cortisol and heart rate of forty-eight individuals randomly assigned to three different conditions: human friend, novel (non-pet) dog, or control (i.e., no support).<sup>166</sup> All participants were asked to complete a stress test under one of these three conditions. In comparison with the control group and human social support group, participants paired with a dog showed decreased cortisol levels and reduced heart rates throughout the experiment. The researchers explained that “it may be that social support gleaned from a human friend can be counterproductive because of evaluation apprehension.”<sup>167</sup> These results led the researchers to conclude that “short-term exposure to a novel dog in an unfamiliar setting can be beneficial.”<sup>168</sup>

Krause-Parello and Gulick found that sexually abused children participating in a forensic interview in an intervention group with a certified therapy dog had lower baseline cortisol levels and post-forensic-interview levels, compared to the children in the control group who did not receive canine-therapy intervention.<sup>169</sup>

In summary, research shows a correlation between short-term exposure to a novel dog and decreased cortisol level. The presence of a dog during a family mediation could help by stimulating a reduction in the cortisol level of parties who may be impacted by social stresses, fear of evaluation, or other vulnerabilities and sensitivities arising from their separation.

## B. *Decreases in Epinephrine and Norepinephrine*

Epinephrine, also known as adrenaline,<sup>170</sup> is a hormone naturally released when one is under stress. Norepinephrine, also known as non-adrenaline, is another hormone that is released while one is under stress. Like epinephrine, norepinephrine works by constricting blood vessels and increasing blood pressure. As byproducts of stress,

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165. See Andrea Beetz et al., *The Effect of a Real Dog, Toy Dog, and Friendly Person on Insecurely Attached Children During a Stressful Task: An Exploratory Study*, 24 ANTHROZOÖS 349, 361 (2011).

166. See John P. Pohleber & Robert L. Matchock, *The Presence of a Dog Attenuates Cortisol and Heart Rate in the Trier Social Stress Test Compared to Human Friends*, 37 J. OF BEHAV. MED., 860, 860 (2013).

167. *Id.* at 865.

168. *Id.* at 860.

169. See Krause-Parello, *supra* note 48, at 881.

170. See What is Epinephrine?, EPIPEN AND EPIPEN JR. OFFICIAL WEBSITE, <https://www.epipen.com/about-epipen/what-is-epinephrine>.

researchers have measured epinephrine and norepinephrine levels to determine effects of Animal-Assisted Interactions on human companions. Some of these studies show that Animal-Assisted Interventions will in certain circumstances result in decreases in epinephrine and norepinephrine.<sup>171</sup> For instance, Cole et al. researched the effect of twelve-minute dog-assisted therapy sessions on adult patients hospitalized because of heart failure.<sup>172</sup> The researchers found that the patients who participated in dog therapy had significantly greater reductions in both epinephrine and norepinephrine as compared to the two control groups that either had a twelve-minute visit from a human volunteer or usual care.

### C. *Increases in Secretory Immunoglobulin A (IgA)*

IgA is a protein that can be measured in the saliva. IgA also serves as a stress biomarker. The body will react to stress by producing less IgA.<sup>173</sup> Therefore, decreased stress means increased IgA. Krause-Parello and Friedman found a significant increase in salivary IgA levels in participants assigned to a group who were asked to pet a dog compared to participants assigned to one of two control groups (petting a stuffed animal or sitting comfortably on a couch).<sup>174</sup> Krause-Parello and Gulick also found that IgA was higher in children participating in a forensic interview following a sexual assault when a therapy dog was present during the interview than when a therapy dog was not present.<sup>175</sup>

### D. *Increases in Oxytocin (OT)*

Perhaps the most important chemical reaction influenced by positive canine presence is an increase in oxytocin (OT). Beetz et al. explained that “[o]xytocin is produced in the hypothalamus and released into the circulatory system and the brain in response to sensory stimulation via a network of OT-containing nerves . . . e.g., during breastfeeding, labor, and sex, but also in touch, warmth and

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171. See Cole, *supra* note 50, at 576; Buckle, *supra* note 9, at 42.

172. See Cole, *supra* note 50, at 575.

173. See G.B. Proctor & G.H. Carpenter, *Neural control of salivary S-IgA secretion*, 52 INT’L REV. OF NEUROBIOLOGY 187, 187 (2002).

174. See Cheryl A. Krause-Parello & Erika Friedmann, *The effects of an animal-assisted intervention on salivary alpha-amylase, salivary immunoglobulin A, and heart rate during forensic interviews in child sexual abuse cases*, 27(4) ANTHROZOÖS 581, 581 (2014).

175. See Krause-Parello, *supra* note 48, at 882.

stroking, usually in the context of trusting relationships.”<sup>176</sup> OT “instills trust, increases loyalty, and promotes the ‘tend and befriend’ response.”<sup>177</sup> Cloke commented that “[t]he physical basis for collaboration, altruism, trust, forgiveness, and interest-based conflict resolution techniques, has been clearly identified with the ‘tend and befriend’ hormone oxytocin.”<sup>178</sup> He commented further that “[o]xytocin is widely believed responsible for prompting empathy, compassion, trust, generosity, altruism, parent-child bonding, and monogamy in many species, including human beings.”<sup>179</sup> Additionally, OT has been found to increase human interaction.<sup>180</sup> Cloke discussed a study where participants were given pretend money and asked to invest it with a stranger. On average the participants spent a quarter to a third of the money. Participants were then given four sniffs of OT or a placebo and asked again to invest their pretend money. Those receiving OT demonstrated a significant increase in their trust levels. They were willing to spend 80% more than those administered the placebo.<sup>181</sup>

The release of OT during Animal-Assisted Interactions may help explain their numerous benefits. As noted earlier, OT modulates several physiological, psychological, and behavioral functions. Dogs provide a noninvasive, safe, and effective way of bringing OT into the room. Beetz et al. commented that the effects of OT and animal-assisted interactions correspond, since both “were found to promote social interaction, to reduce stress and anxiety, and to enhance human health.”<sup>182</sup> Beetz et al. further proposed that “most of these effects of HAI may be mediated via the OT system and that the activation of this system represents the mechanism underlying these effects.”<sup>183</sup>

A considerable body of research confirms that social interaction between humans and dogs can lead to an increase in our OT levels. Two studies found that it takes between five and twenty-four minutes of friendly interaction between dogs and humans to increase OT.<sup>184</sup> These studies also found that OT concentrations almost doubled in

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176. Beetz, *supra* note 100, at 11.

177. Kenneth Cloke, *Bringing Oxytocin Into the Room: Notes on the Neurophysiology of Conflict*, <http://www.mediate.com/articles/cloke8.cfm>.

178. *Id.*

179. *Id.*

180. See Anne Campbell, *Oxytocin and Human Social Behavior*, 14 PERSONALITY AND SOC. PSYCHOL. REV. 281, 281–95 (2010).

181. *Id.* at 281.

182. Beetz, *supra* note 100, at 12.

183. *Id.* at 11.

184. See Odendaal, *supra* note 135, at 296.

humans and dogs following positive interaction. Nagasawa et al. examined the effect of a dog gazing on its owner on the owner's urinary OT level.<sup>185</sup> The researchers measured the OT levels of the dog owners before and after a thirty-minute interaction with their dogs and found that owners who received dog gazes showed higher concentrations of urinary OT than those who did not.

Clearly, dog presence can promote positive chemical effects in humans. Scientists can now objectively and scientifically assess the effect the presence of dogs might have in mediations through the measure of stress biomarkers in parties participating in negotiations.

## VI. MECHANISMS UNDERLYING DOGS' ABILITY TO PROMOTE HUMAN HEALTH

While many studies indicate that Human-Animal Interaction can promote physical and mental wellness in humans, evidence of a direct causal association between human well-being and companion animals is inconclusive.<sup>186</sup> There appears to be no unified or empirically supported theory to explain the phenomenon.<sup>187</sup> Rather, Animal-Assisted Intervention literature suggests several possible theories to explain the underlying mechanisms of Animal-Assisted Interaction that promote physical and mental health benefits in humans. The three commonly cited theories include the attachment, biophilia, and social support hypotheses.<sup>188</sup>

### A. Attachment Theory

The attachment theory was first proposed by John Bowlby as a framework for explaining the relationship between children and their primary caregiver during their first year of life and its effect on future human relationships.<sup>189</sup> Bowlby described attachment as:

any form of behavior (e.g., crying, calling, seeking eye contact, reaching out for or following) that results in a person attaining or maintaining proximity to some other clearly identified individual who is conceived as better able to cope with the world. It

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185. See Miho Nagasawa et al., *Dog's Gaze at Its Owner Increases Owner's Urinary Oxytocin During Social Interaction*, 55 HORMONES & BEHAV. 434, 434 (2009).

186. See Wells, *supra* note 42, at 523.

187. See *id.*; Kruger, *supra* note 8, at 23; Buckle, *supra* note 9, at 4; O'Haire, *supra* note 12, at 227.

188. See Kayla Burd, *The Effects of Facility Animals in the Courtroom on Juror Decision-Making* (May 2013) (unpublished M.S. thesis, Arizona State University).

189. See Beetz, *supra* note 140, at 350.

is most obvious whenever the person is frightened, fatigued, or sick and assuaged by comforting and caregiving.<sup>190</sup>

Bowlby also hypothesized that another function of the attachment system is the reduction and buffering of stress.<sup>191</sup> Beetz explained that “[a]n effective caregiver provides a safe haven in times of distress, such as illness, pain, hunger, or negative emotional states such as fear, anger, or sadness, which also positively affects physiology. Furthermore, the caregiver serves as a secure base for exploration of the environment.”<sup>192</sup>

Wells proposed that these bonds of affection also exist between humans and their pets.<sup>193</sup> Kurdek proposed that dogs may function as attachment figures.<sup>194</sup> He noted that “[d]ogs exhibited the feature of proximity maintenance as well as fathers and siblings did, and secure basis and proximity maintenance were their most salient features. Differences in the closeness of relationships with dogs versus humans were minimal for students with high levels of attachment to their dogs.”<sup>195</sup> Beetz et al. commented that “it has become increasingly clear that at least within the mammals, brain mechanisms shared due to common ancestry are involved in attachment formation.”<sup>196</sup> Wells pointed out, for instance, how pet owners often speak of their pets as if they are part of the family and in fact to their pets as they would to a child.<sup>197</sup> Wells pointed out that these bonds of affection “lead to improved psychological health . . . which in turn may bolster physiological well-being.”<sup>198</sup>

## B. *Biophilia Hypothesis*

The biophilia hypothesis suggests that humans possess an innate tendency to seek connections with other forms of life.<sup>199</sup> Biophilia explains that some people feel calmer in the presence of

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190. *Id.* at 350–51.

191. *See id.* at 351.

192. *Id.*

193. *See* Wells, *supra* note 42, at 530.

194. *See* Lawrence A. Kurdek, *Pet Dogs as Attachment Figures*, 25 J. OF SOC. & PERS. RELATIONSHIPS 247, 247 (2008).

195. *Id.*

196. Beetz, *supra* note 140, at 350.

197. *See* Wells, *supra* note 42, at 530.

198. *Id.* at 531.

199. *See Biophilia hypothesis*, ENCYCLOPEDIA BRITANNICA, <https://www.britannica.com/science/biophilia-hypothesis>.



companion animals due to an innate and genetically determined affinity of human beings with the natural world.<sup>200</sup> Wilson defined biophilia as “the urge to affiliate with other forms of life” and proposed an evolutionary or biological basis for biophilia.<sup>201</sup> Humans increase their survival rate through their attention to animals because animal behaviors serve as an environmental cue signifying safety or danger.<sup>202</sup> Being in the presence of a calm dog provides a “pleasant external focus for attention” and gives one a sense of security.<sup>203</sup> This sense of security quickly disappears when a calm dog is suddenly agitated by the presence of a potential intruder.

### C. *Social Support Hypothesis*

The social support hypothesis proposed by Cobb offers a further explanation regarding the underlying mechanisms that spur the physical and psychological health benefits observed in Animal-Assisted Interventions.<sup>204</sup> Cobb defined social support as a process whereby social relationships and interpersonal transactions afford “[i]nformation leading the subject to believe that he is cared for and loved, . . . esteemed . . . and that he belongs to a network of . . . mutual obligations.”<sup>205</sup>

Experimenters postulate that companion animals play an important socially supportive role for humans and are responsible to some degree for the positive health effects resulting from Human-Animal Interaction.<sup>206</sup> Researchers have posited that pets buffer people from stress and illness by providing social support, which in turn reduces or eliminates physiological responses by tranquilizing the neuroendocrine system so that people are less reactive to perceived stress.<sup>207</sup>

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200. See *Biophilia*, OXFORD LIVING DICTIONARIES, <https://en.oxforddictionaries.com/definition/biophilia>.

201. Stephen R. Kellert & Edward O. Wilson, *THE BIOPHILIA HYPOTHESIS* 416 (1995).

202. See O’Haire, *supra* note 12, at 227.

203. *Id.* at 228.

204. See Sidney Cobb, *Social Support as a Moderator of Life Stress*, 38(5) *PSYCHOSOMATIC MED.* 300, 300 (1976).

205. *Id.*

206. See Buckle, *supra* note 9, at 21–26.

207. Allen, *supra* note 55, at 583.

Allen et al. opined that pets “may function to reduce stress and its health effects by providing the kind of nonevaluative companionship that precludes the typically arousing effects of evaluative companions during stressful challenges.”<sup>208</sup> Wells postulated that pets meet our social requirement as people commonly perceive pets as “nonjudgmental,” “noncritical,” and “there in times of trouble.”<sup>209</sup> Buckle commented that the “social support derived from social relationships can buffer people against the health consequences of life stress and protect those in crisis from pathological states such as anxiety and depression.”<sup>210</sup> Buckle explained that “companion animals can act as social support in and of themselves, and they can also serve as social catalysts or social icebreakers that facilitate and encourage social interactions between humans.”<sup>211</sup>

## VII. WHY DOGS?

Dogs are uniquely qualified to participate in Animal-Assisted Mediations. Research has confirmed the short and long-term health benefits of dog-assisted interventions and dog ownership. Research demonstrates the beneficial effects of companion dogs on the physical, psychological, and social health of humans. In relation to other types of pets, dog owners tend to gain more health benefits from pet ownership than those with other types of pets.<sup>212</sup>

Dogs are accessible, trainable, and can work with more than one party at a time. Additionally, standards for therapy dogs are already well established. Dogs can therefore be trained to meet the stringent requirements of a dog therapy organization. Having shared their environment with humans for thousands of years, “dogs are uniquely attuned and synchronized with human behaviours.”<sup>213</sup> Because of their pack instinct, they are willing to engage in interactions with humans.<sup>214</sup> Dogs have excellent human interaction skills and are highly social animals. When treated well, dogs demonstrate warmth

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208. *Id.*

209. Wells, *supra* note 42, at 531.

210. Buckle, *supra* note 9, at 23.

211. *Id.* at 24.

212. See James Serpell, *Beneficial Effects of Pet Ownership on Some Aspects of Human Health and Behavior*, 84 J. ROYAL SOC'Y MED. 717, 717 (1991).

213. Robert D. Benjamin, *Dogs as Conflict Mediators*, *MEDIATE*, (2003) <http://www.mediate.com/articles/benjamin13.cfm>.

214. See Victor Chitic et al., *The Effects of Animal-Assisted Therapy on Communication and Social Skills: A Meta-Analysis*, 13 *TRANSYLVANIAN J. PSYCHOL.* 1, 2 (2012).

and openness, provide unconditional positive regard, are nonjudgmental and loyal.<sup>215</sup> These traits in turn aid in “the therapeutic alliance and the modeling of these qualities.”<sup>216</sup>

Dogs possess the ability “to read human cues and behavior, accurately interpreting even subtle hand gestures and glances.”<sup>217</sup> Additionally, dogs’ powerful olfactory abilities allow them to detect stress-induced chemical changes in humans. Some have postulated that dogs have a capacity to sense peoples’ emotions and alleviate their tensions.<sup>218</sup> This ability may predispose the dog to provide appropriate attention to someone in need of therapeutic contact.<sup>219</sup> Studies have shown that a dog’s presence alone may be a useful tool for helping those in distress to continue their communications effectively.

These traits confirm the viability of Canine-Assisted Mediations where emotions are high. The advantages of using dogs are well known. People employ dogs in numerous settings, including hospitals, psychiatric units, nursing homes, prisons, schools, universities, and courthouses. Doctors, psychiatrists, psychologists, nurses, behavioral therapists, and educators have successfully used dogs for the benefit of their constituents and confirmed the viability of dog-assisted therapy in circumstances where emotions are high. Mediation is a logical extension of this proven model.

### VIII. CANINE-ASSISTED MEDIATION

As Hopper noted, “[d]ivorce often constitutes a dramatic transformation of a close, personal, and usually harmonious relationship into one that is deeply antagonistic and bitter.”<sup>220</sup> Family law litigants typically face emotions ranging from anger and anxiety to disappointment and embarrassment. For many, the grief suffered following separation is as devastating as bereavement.<sup>221</sup>

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215. See Zilcha-Mano, *supra* note 10, at 547; see also O’Haire, *supra* note 12, at 228.

216. Bains, *supra* note 21, at 48; see Kemp, *supra* note 203, at 558; Joanne Vining et al., *The Distinction Between Humans and Nature: Human Perceptions of Connectedness to Nature and Elements of the Natural and Unnatural*, 15 HUM. ECOLOGY REV. 1, 1 (2008).

217. Walsh, *supra* note 17, at 469.

218. See Leaser, *supra* note 215, at 962–63.

219. See Marcus, *supra* note 11, at 1–2.

220. Joseph Hopper, *The Symbolic Origins of Conflict in Divorce*, 63 J. OF MARRIAGE & FAM. 430, 430 (2001).

221. See Brandi N. Frisby et al., *Face and Resilience in Divorce: The Impact on Emotions, Stress, and Post-Divorce Relationships*, 29 J. OF SOC. & PERS. RELATIONSHIPS 715, 718 (2012).

Divorce by its very nature is a highly emotional and life-changing event. Couples frequently come to mediation after a long period of acrimony, and many already display strong feelings of anger by the time they enter the mediation. Marital negotiations foster even stronger negative emotions. For many, these emotions can be a new and overwhelming experience, leaving the individual unequipped and seemingly incapable of working toward a satisfactory resolution. The damage caused by these emotions can be significant and can include severe effects on one's physical and mental health. The effects can also be far-reaching, as uncontrolled emotions may affect others, most notably the children of the parties. Moreover, the impact of emotional breakdown can linger for extended periods of time. As noted by one study, while some people are happier after divorce than they were before, the average person experiences a permanent decline in happiness levels.<sup>222</sup> This same study also concluded that while a separated spouse's sense of happiness rebounded about five years after divorce, it never rose back to pre-divorce levels.<sup>223</sup>

Given this environment, the mediator must be mindful of, and vigilant against, runaway or uncontrolled anger. The mediator must be equipped and prepared to address the parties' stress and mitigate its negative impact on the negotiations. Some scholars posit that pure facilitation is not the answer.<sup>224</sup> Dunham commented that "[m]ediators who are successful in mediations involving angry people do not simply sit and listen."<sup>225</sup> Effective mediators in family law disputes must also capably manage the parties' emotional turmoil.

Managing emotions includes avoiding barriers created by traditional litigation and minimizing the detrimental consequences of separation. While mediation represents a more appropriate, confidential, and effective venue for separating couples to resolve their disputes, one study has shown that thirty to forty percent of families undergoing mediation complain of not feeling understood during the process.<sup>226</sup> A possible explanation may be that the mediation process either ignores or lacks proper attention to the parties' physical, psychological, and social needs. As Mayer noted:

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222. See Richard A. Lucas, *Time Does Not Heal All Wounds*, 16(12) AM. PSYCHOL. SOC. 945, 945 (2005).

223. See *id.* at 947.

224. See Kenneth F. Dunham, *I Hate You, But We Can Work It Out: Dealing With Anger Issues in Mediation*, 12 APPALACHIAN J. OF L. 191, 203 (2013).

225. *Id.*

226. See Jessica Pearson & Nancy Thoennes, *A Preliminary Portrait Of Client Reactions To Three Court Mediation Programs*, 23 MEDIATION Q. 1, 21-41 (1985).

[t]he emotional dimension of resolution involves both the way disputants feel about a conflict and the amount of emotional energy they put into it. When people no longer experience the feelings associated with a conflict, or at least not as often or as high level of intensity as when they were fully engaged, then an important aspect of resolution has been reached.<sup>227</sup>

Mayer further observed that some disputants process conflict primarily through emotional resolution. “If they feel better, the conflict must be resolved; if they do not, then no matter what else has occurred, the conflict is still as bad as ever.”<sup>228</sup> Knowing this, mediators might well inquire as to the strategies they can employ to meet each of the parties’ needs (physical, psychological, and social) and facilitate resolution by transforming conflict relationships into opportunities for resolution. Fromm addressed this question in part:

[i]n order to become a truly skillful negotiator, it is important not only to employ cognitive strategies and skills but also to be emotionally intelligent. Negotiating using cognitive strategies and skills alone is like building a house with tools and materials to construct the outside but no tools and materials to finish the interior. The whole toolbox of emotion and cognitive skills is needed to enrich, enhance and inform the negotiation experience.<sup>229</sup>

Exceptional mediators combine intellectual and emotional intelligence, legal skills, and the effective mediation tools to redefine negotiations from one in which conflict is the predominant theme to one in which cooperation and collaboration are the defining characteristics. This combination of skills and strategies allows a mediator to better address clients’ emotions when necessary and to facilitate negotiations toward a just, reasonable, and satisfying resolution. The thoroughly researched, positive effects of Animal-Assisted Interactions on human welfare reveal an opportunity for mediators to add to their own toolboxes and take both an innovative and novel approach to dispute resolution.

Multiple studies canvassed in this Article show the beneficial effects of Animal-Assisted Interactions in a wide range of stressful, painful, and anxiety inducing situations. Incorporating this knowledge to assist parties to deal with their stress in family law disputes

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227. Mayer, *supra* note 6, at 39.

228. *Id.*

229. Fromm, *supra* note 4, at 221.

has potential to promote constructive relationships by addressing clients' physical, psychological, and social needs to promote constructive relationships.

Canine-Assisted Mediation (CAM), a form of Dog-Assisted Intervention that purposely incorporates dogs as part of the dispute resolution process, can be an empowering process offering an opportunity for a more holistic and multidimensional framework for addressing conflict, while avoiding barriers created by traditional litigation. Dogs may facilitate improved communications and assist parties to creatively and insightfully resolve their conflicts by buffering strong emotions that interfere with their abilities to effectively manage their conflict.

CAM is an untapped resource that may dramatically improve the process by reducing tension and deescalating anger, focusing the parties, and helping them to reach a resolution in a more effective, efficient, and productive manner. Cited studies have shown that dogs can profoundly improve the atmosphere of a therapy session, leading to numerous physical, psychological, and social benefits. The same benefits may also occur in family mediations. Dogs provide mediators with an additional cost-effective, safe, and non-verbal tool that may be incorporated into practice as a means of effectively managing emotions and the social environment of a mediation. Since dogs are typically perceived as non-judgmental and accepting, they have tremendous potential for family law mediations. CAM may serve parties by ameliorating their physical and emotional pain and by inspiring an atmosphere characterized by acceptance, trust, empathy, and warmth. This in turn can result in more positive, interest-based communications between the parties. This would be especially true for mediation participants who have few social contacts or are emotionally and socially challenged.

With minimal risk, the appropriate use of dogs in mediation can help meet the needs of family litigants on numerous fronts. For instance, introducing a dog toward the beginning of the mediation process may assist the parties by mitigating their perceptions of the other party, the mediator, and the environment, and therefore making the overall experience less intimidating and more productive. Also, the calming effect of dogs may serve to keep negotiations on track by ameliorating the parties' emotional distress, enhancing mood, and proactively stimulating a positive environment that heads off strong emotions before they arise.

In addition to behavioral and emotional changes, separating couples can also undergo physiological changes. One might reasonably expect these physiological changes to become even more dramatic when separating couples commence their participation in mediation. Numerous studies have confirmed that stress tends to raise blood pressure and heart rate. Discussing a matter of disagreement for ten minutes was shown to cause an increase in blood pressure in husbands and wives.<sup>230</sup> There is a positive correlation between marital discord and higher epinephrine, norepinephrine, and cortisol levels.<sup>231</sup> Canine-Assisted Mediation could provide significant benefits to parties by buffering these physiological reactions to stress, and by transitioning the mediation participants into a better frame of physical and mental health.

Parties often attend mediations on their own without legal representation or other support. A dog's presence may assist these parties by offering them non-evaluative social support. For the many individuals experiencing the pain of loneliness or disrupted emotional attachment following separation, a dog's presence may provide a substitute for human companionship and help parties get some distance from their pain. For those experiencing feelings of fear and intimidation, the sense of security provided by a companion dog may help stimulate exploratory communications, particularly for the angry and emotionally upset party. For those seeking validation and understanding, dogs may assist by helping these individuals feel special, understood, and needed.<sup>232</sup> Dogs may fulfill these needs by simply being present and offering their unqualified and nonjudgmental attention and acceptance.

Dogs are tactile and have been shown to satisfy a person's need for touch without the fear of predicaments that often accompany physical contact among humans. The importance of touch is well documented. Kaminski noted that the lack of skin-to-skin contact can result in "tactile hunger."<sup>233</sup> Levinson opined that humans have an instinctive need for touch and commented that the basic need for

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230. See Craig K. Ewart et al., *High Blood Pressure and Marital Discord: Not Being Nasty Matters More Than Being Nice*, 10 HEALTHY PSYCHOL. 155, 155 (1991).

231. See Janice K. Kiecolt-Glaser et al., *Love, Marriage, and Divorce: Newlyweds' Stress Hormones Foreshadow Relationship Changes*, 71 J. OF CONSULTING & CLINICAL PSYCHOL. 176, 176 (2003).

232. See Zilcha-Mano, *supra* note 10, at 543; O'Haire, *supra* note 12, at 228.

233. Kaminski, *supra* note 87, at 331.

“contact comfort never disappears.”<sup>234</sup> Levinson spoke of companion animals as our connection to the natural world. He commented that:

[s]oft contact begins to evoke experiences of being loved and secure. Soft touch and stroking sensations reduce tension and produce relaxation. Soft contact brings about the blocking of the “opiate receptors” in the limbic system, corpus striatum, and hypothalamus through the production of “endorphins,” a by-product of complex, biochemical reactions in the brain which are not yet fully understood. They act the way morphine does, by creating euphoria . . . .<sup>235</sup>

Kaminski et al. described touch “as fulfilling functions such as comfort and contact with reality.”<sup>236</sup> Kemp et al. found that those having physical contact with a dog for five minutes a day demonstrated a decline in anger, feelings of anxiousness, rigidity, and argumentativeness.<sup>237</sup>

Physical touch has also been found to increase OT levels while reducing cortisol resulting in pain reduction, reduced stress, improved immune function and overall health, and greater attentiveness.<sup>238</sup> One study illustrated increased OT levels after as little as thirty to forty-five seconds of touching or petting.<sup>239</sup> Dogs, therefore, provide an inexpensive, safe, simple, and effective means of bringing OT into the room. This in turn allows for the modulation of several physiological, psychological, and behavioral functions that are often impacted by stress resulting from separation, thereby cultivating the opportunity for more effective collaboration and interest-based conflict resolution techniques, compassion, empathy, forgiveness, and trust. In addition to minimizing the detrimental impacts of emotional anger on dispute resolution, dogs may also mitigate serious health risks, including high blood pressure, often associated with emotional, uncontrolled, or runaway anger.<sup>240</sup> Since negotiations are inherently stressful, mediators owe it to their clients to use this knowledge by

234. Boris M. Levinson, *Human/Companion Animal Therapy*, 14 J. OF CONTEMP. PSYCHOTHERAPY 131, 134 (1984).

235. *Id.* at 133.

236. Kaminski, *supra* note 87, at 331.

237. See Kathleen Kemp et al., *Equine Facilitated Therapy With Children And Adolescents Who Have Been Sexually Abused: A Program Evaluation Study*, 23 J. OF CHILD & FAM. STUD. 558, 558 (2014).

238. See Campbell, *supra* note 155, at 281.

239. See Ashley Montagu, *The Skin, Touch, And Human Development*, 2 CLINICS IN DERMATOLOGY 17, 17 (1984); see also Pat Sable, *The Pet Connection: An Attachment Perspective*, 41 CLINICAL SOC. WORK J. 93, 93 (2013); Walsh, *supra* note 17, at 462.

240. See Adler, *supra* note 2, at 161.



designing processes that minimize health risks associated with mediations.

Dogs are social animals. Researchers have described dogs as “social catalysts.”<sup>241</sup> Their interaction with humans has been shown to reduce aggression and build rapport between individuals and between individuals and their therapist.<sup>242</sup> The same is likely to occur in a mediation where the dogs may serve as a bridge, facilitate rapport between the mediator and the parties, and help direct parties toward a more interactive, open, and workable relationship. For separating couples, trust is often at a low ebb. Where there has been a loss of trust, dogs may provide an avenue for a correction to occur on “adaptive feelings, expectations, and behaviors.”<sup>243</sup> Mirror neurons may be activated while observing another person or animal.<sup>244</sup> It follows that mediation participants might benefit learning certain positive characteristics modeled by dogs including unconditional love and acceptance.<sup>245</sup> Having dogs present at the beginning of the mediation may tend to increase trust and strengthen the relationship between the parties and the mediator earlier in the process, just as it has been shown to do between therapists and their patients.<sup>246</sup>

The mediator’s interaction with the dog might provide parties with an opportunity to grow and learn more about themselves, how they relate to others, and the problems they need to work on by serving as a means of mirroring interpersonal skills.<sup>247</sup> By decreasing the parties’ sense of anxiousness and stress, dogs may also help enhance the individuals’ ability to see what is important, put things in perspective, and recognize their goals.<sup>248</sup>

Dogs may provide parties with needed distraction. While mediators do their best to promote comfortable and relaxing environments, the very nature of the mediation may seem aggressive, intimidating, and unpleasant. As people are usually deferential to the

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241. Buckle, *supra* note 9, at 24; Wells, *supra* note 42, at 528; Wells, *supra* note 124, at 349.

242. *Id.* at 32.

243. Zilcha-Mano, *supra* note 10, at 549.

244. See Jessica Marshall, *Mirror Neurons*, 111 PROCEEDINGS OF THE NAT’L ACAD. OF SCI. 6531, 6531 (2014); Marco Iacoboni, *Imitation, Empathy, And Mirror Neurons*, 60 ANNUAL REV. OF PSYCHOL. 653, 653 (2009).

245. See Bains, *supra* note 21, at 35.

246. See Anke Prothmann et al., *Dogs In Child Psychotherapy: Effects On State Of Mind*, 19 ANTHROZOËS 265, 275–76 (2006).

247. See Zilcha-Mano, *supra* note 10, at 555.

248. See Allen, *supra* note 109, at 815; Kemp, *supra* note 203, at 558.

interests of dogs, their presence may help divert participants' attention away from the negative forces that are consuming them.<sup>249</sup> For pet owners, for instance, the presence of a dog during a mediation might assist by making the mediation appear more home-like and by providing unconditional companionship to the parties.

Dogs may also facilitate executive functioning. Parties in a mediation need to be able to concentrate, think, reason, plan, and control impulses if they are to succeed at finding resolution to their conflict. As Fromm noted:

[t]he negotiator who displays positive affect has been shown to achieve greater cooperation and enhance the quality of the agreements reached. Specifically, the negotiator's positive emotional state or mood increases concession making, stimulates creative problem-solving, increases joint gains, reduces the use of contentious tactics, increases preferences for cooperation, increases the use of cooperative negotiation strategies, and increases the proposal of alternatives and suggested trade-offs. Positive affect also has been shown to lead to better decisions and improved results for the negotiator displaying the affect.<sup>250</sup>

Fromm went on to comment that:

[i]n addition to obtaining a better substantive outcome, positive affect has also been found to increase the effective and relational satisfaction of the parties in a negotiation. Specifically, the display of positive affect encourages the continuation of longer-term business relationships, increases the report of positive negotiation experience, and increases the chance that an opponent will speak highly of the positive negotiator and portray that negotiator as fair and cooperative.<sup>251</sup>

Regarding negative affect, Fromm stated:

[n]egotiators expressing negative affect have been shown to decrease initial offers, promote rejection of ultimatum offers, increase the use of competitive strategies, achieve fewer joint gains, refuse offers that served their economic interests, and decrease the desire to work together in the future. These results consistently show the negotiators expressing unpleasant affect tend to be more competitive and reluctant to make concessions.

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249. See Andrew Leaser, *See Spot Mediate: Utilizing the Emotional and Psychological Benefits of "Dog Therapy" in Victim-Offender Mediation*, 20 OHIO ST. J. ON DISP. RESOL. 943, 962 (2005).

250. Fromm, *supra* note 4, at 239.

251. *Id.* at 240.

Anger, in particular, has been shown to cause bigger risk-taking, more errors to be made, and greater financial loss in negotiations. As such, many researchers have concluded that negative feelings have a negative impact on negotiations.<sup>252</sup>

Cloke also commented on the impact of positive emotion in mediations, noting that “positive emotion enhanced creative problem solving by enabling subjects to see relations among objects that would otherwise have gone unnoticed.”<sup>253</sup>

In family mediations, emotions are triggered quickly and before rational faculties of the brain can assess a situation.<sup>254</sup> Depending on the circumstances, emotions can lead parties astray and prevent them from thinking and behaving rationally. It follows that the regulation of stress can play a significant role on cognitive performance.<sup>255</sup> By moderating emotions, dogs may facilitate creative problem-solving. As previous research has shown, low stress levels and good executive functions will contribute to a better and more productive atmosphere for those receiving treatment. Studies have shown that adaptive strategies are available to prevent emotional takeover and divert energy toward logical and rational thinking.<sup>256</sup> Since a positive mood and attitude are prerequisites of effective social and cognitive learning, CAM has the potential to support dispute resolution goals by promoting attention, concentration, and motivation.

Clearly, dogs have the potential to dramatically augment the natural and trained abilities of the mediator. CAM offers a new strategy by which mediators can create a more calm and productive environment and assist parties to overcome physical, emotional, and social barriers that interfere with their ability to engage in rational problem solving and prevent them from reaching resolution. CAMs enhance the traditional family mediation system with creative ways to meet the needs of disputing parties to avoid emotional barriers. Moreover, CAM can be effectively used to augment all models of mediation and allow for fuller and unfettered creative contribution by the mediator.

Regardless of the mediation model used, dogs provide the mediator with an additional tool to employ in assisting the parties to buffer their emotions, expand their thinking, increase trust, and challenge

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252. *Id.* at 241.

253. Cloke, *supra* note 152.

254. *See* Beetz, *supra* note 100, at 15.

255. *See id.* at 10.

256. *See* Jeremy Lack & François Bogacz, *The Neurophysiology of ADR and Process Design: A New Approach to Conflict Prevention and Resolution?*, 14 *CARDOZO J. CONFLICT RESOL.* 33, 57 (2012).

their assumptions in a practical and risk-free manner. As such, the dog becomes an innovative and invaluable asset to the mediator by functioning as a non-judgmental neutral facilitator.

#### IX. PET CANINE-ASSISTED MEDIATION

The many studies focusing on the benefits of animal companionship have focused both on pets and on animals not owned by research subjects. Not surprisingly, research confirms that interactions with familiar animals serve even greater therapeutic benefit than those with an unfamiliar animal.<sup>257</sup> For instance, Baun et al. measured the blood pressure, heart rate, and respiratory rate in twenty-four subjects ages twenty-four to seventy-four during three nine-minute sessions in which they petted an unknown dog, petted a dog with whom a companion bond had been established for at least six months, or read quietly.<sup>258</sup> The researchers found that petting one's own dog, as opposed to a strange dog, resulted in a significantly greater decrease in the subject's blood pressure.<sup>259</sup>

Given these findings and the fact that not all mediators will have dogs, there may nonetheless be an opportunity for mediators to help parties achieve each of the benefits cited above by permitting parties to bring their own dog to the mediation. Before involving the pet, however, the mediator will want to consider a wide variety of factors, including the parties having a healthy relationship with the pet. In addition, the pet needs to be healthy, up to date on its vaccinations, and of an appropriate temperament and disposition to be present during the mediation. The mediator should also reflect upon the owner's degree of dependence on the pet and whether the animal's presence will prevent or inhibit social interactions.

There may be situations where the pet and/or its ownership is a subject of dispute in the lawsuit. In these cases the presence of the pet may be more of a distraction than a tool that helps address the real issues at hand. Finally, the mediator should consider whether any party has allergies or phobias related to pets.

Only after careful consideration of these and similar practical considerations will the mediator be in a position to determine whether the pet should be present during the course of the negotiations.

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257. See Wells, *supra* note 42, at 524.

258. See Mara M. Baun et al., *Physiological Effects of Human/Companion Animal Bonding*, 33 NURSING RES. 126, 126 (1984).

259. See *id.* at 128-29.

## X. LIMITATIONS AND CHALLENGES TO CANINE-ASSISTED MEDIATION

A. *Research Limitations*

Although research has demonstrated that animals can promote the physical, psychological, and social health in humans, no published studies have yet examined the impact of Animal-Assisted Intervention in dispute resolution. Some academics have cautioned that much of the current research about the health and social benefits of Dog-Assisted Interactions is not empirically defined.<sup>260</sup> They criticize some of the earlier research as being weak and poorly controlled because researchers based their findings on feelings and relatively small sample sizes.<sup>261</sup> Furthermore, although much of the research confirms human-animal interaction benefits, there are also studies respecting the relationship between companion animals and human health where the “results have been inconclusive, with positive, neutral and negative effects variously reported.”<sup>262</sup> Finally, while much of the research is promising and supports the belief that animals are good for us, evidence of a direct causal connection between human well-being and companion animals remains inconclusive.<sup>263</sup> What is clear is the need for significant additional research, including further collaboration with other disciplines.

B. *Canine-Assisted Mediation is Not for Everyone*

While studies appear to confirm the value of Companion-Animals, mediators benefit from maintaining a realistic perspective. Animal-Assisted Interventions are not a panacea and will not be suitable or appropriate for everyone. Not everyone is inclined to like animals and some people fear dogs or are uncomfortable around them. Moreover, some people suffer from dog allergies. These concerns cannot be ignored. Clearly, for these people, CAM is inappropriate.

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260. See Bains, *supra* note 21, at 39.

261. See, e.g., Chur-Hansen, *supra* note 13, at 140–41; see also Harold Herzog, *The Impact of Pets on Human Health and Psychological Well-Being: Fact, Fiction, or Hypothesis?*, 20(4) CURRENT DIRECTIONS PSYCHOL. SCI. 236, 237–38 (2011); Cindy C. Wilson & Sandra B. Barker, *Challenges in Designing Human-Animal Interaction Research*, 47(1) AM. BEHAV. SCIENTIST 16, 18 (2003).

262. Chur-Hansen, *supra* note 13, at 140; see also Herzog, *supra* note 235, at 236–39.

263. See Wells, *supra* note 42, at 523.

### C. *Inappropriate Dog Disposition or Temperament*

Because each dog is unique, not all dogs are appropriate for mediation use. Most therapy dogs “usually meet high standards meaning they are obedient, calm, friendly, healthy, and well-socialized with humans with special needs and diseases.”<sup>264</sup> Given their intended functions, dogs that do not meet each of these standards should not be used in mediations.

## XI. GUIDELINES FOR PLANNING AND IMPLEMENTING EFFECTIVE CANINE-ASSISTED MEDIATION

The fact that dogs are living and interacting creatures necessitates careful planning and consideration. “Issues pertaining to intervention design, animal selection, liability, supervision, and infection control” are of utmost importance.<sup>265</sup> Therefore, “when designing [the] program, one has to consider the characteristics of the species, the therapeutic foundation of the interaction with one particular animal, aspects related to animal welfare and, most importantly, the safety of the patient while interacting with the therapeutic animal.”<sup>266</sup>

### A. *Appropriate Dog Disposition*

Mediation Dogs should have a calm, gentle, and even temperament. They should be obedient, patient, relaxed, respectful, resilient to stress, and capable of responding to nonverbal and verbal cues and adapting to various environments. They should also be able to work in a controlled and predictable fashion when off a leash. These dogs should not be overly protective or possess a high prey drive that causes them to be easily distracted. They should also be confident and comfortable while in close physical contact with people other than their owners, including individuals from all walks of life.

### B. *Evaluation, Training, and Certification*

Before introducing a dog into one’s mediation practice, it is essential that the dog be evaluated, trained, and certified as a Therapy Dog from an accredited organization. Certification is necessary if mediators are to maintain the integrity of the process as Therapy Dog Certification programs typically set high standards for these dogs.

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264. Beetz, *supra* note 100, at 11.

265. Buckle, *supra* note 9, at 53–54.

266. Chitic, *supra* note 228, at 3.

### C. Mediator Training

In addition to mediation competence and expertise, mediators wishing to incorporate dogs into their practice will need unique understanding and skills related to working with dogs. Typically, this comes from experience. Participation in training programs usually involves shadowing an experienced team in the field and being monitored. Some accredited organizations require therapy dog volunteers to be eighteen years of age or older, physically and mentally capable of performing the activities that are reasonable for the type of service they may be providing, willing to complete an application process and a criminal record check, and successfully participate in an evaluation. Mediators must also provide up-to-date veterinarian documents for the dog, indicating that all required vaccinations are current.<sup>267</sup>

### D. Dog Ownership

It is recommended that the handler and the mediator be one and the same. Mediator dog owners will presumably know their dog well and be better able to monitor reactions of the litigants as well as the dog, thereby allowing for a more fluid and comprehensive response to the negotiations. The bond between the mediator and dog is essential if the mediator is to effectively and confidently control and communicate with the dog during the process. By knowing the dog and observing its behavior as it interacts with the parties, the mediator may become more emotionally intelligent, as the dog provides the mediator with yet another tool for assessing and understanding the parties' emotions. The bond between the dog and the mediator will also augment the mediator's function by allowing the mediator "to work with the dog in a way that serves as a template for how others will interact with the dog."<sup>268</sup> Of course, owning the dog also provides the mediator with the opportunity to ensure his or her dog continues to acquire the skills necessary to effectively carry out its work.

### E. Pre-Mediation Screening

Before commencing a CAM, mediators should screen the parties to determine their willingness to participate in the process. While

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267. See, e.g., *Become a Therapy Dog Volunteer*, ST. JOHN AMBULANCE, <http://www.sja.ca/English/CommunityServices/Pages/Therapy%20Dog%20Services/Become-A-Therapy-Dog-Volunteer.aspx>.

268. Leaser, *supra* note 215, at 28.

screening and obtaining background, the mediator has a prime opportunity to assess the importance of the mediation dog to the parties. During the screening, the mediator should assess whether either of the parties have dog allergies or phobias. Additionally, the mediator should prescreen the parties to determine if they present any potential threat to the dog. Furthermore, mediators should inquire into whether one of the parties or both has exhibited violence in the relationship as “[p]erpetrators of violence against another human being often have a propensity for violent animal abuse, as well.”<sup>269</sup>

#### F. *Ongoing Screening of Parties During Mediation*

In addition to pre-screening parties prior to commencing mediation to determine their suitability for a CAM, the mediators must remain sensitive and aware of the parties’ verbal and nonverbal expressions, in order to confirm that parties are truly at ease with the dog during the mediation.<sup>270</sup> At no time should the mediator impose their dog upon the litigants if they are disinterested or do not wish to interact with the dog.<sup>271</sup>

#### G. *Maintaining Constant Physical Control*

During mediation, it is important that mediators regularly maintain direct physical control over the dogs. Continued monitoring permits the mediator to ensure that the dog is not a distraction to the parties and that it affords approximately equal amounts of time and attention to the participants. It also allows the mediator to tend to the dog’s needs and be available to answer questions the parties may have about the dog. Finally, continual monitoring lets the mediator ensure that the parties not feed the dog or handle it inappropriately. Aggressive parties may present a danger to the dog, the mediator, staff, and others.

#### H. *Maintaining Infection Control Protocols and Hygiene*

The mediator should also ensure that proper infection control protocols are in place. Mediation dogs should have regular veterinary examinations, and they should be fully vaccinated. Animal-Assisted Interventions are typically safe when appropriately conducted and

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269. *Id.* at 31.

270. *See id.*

271. *See id.*



animal-related incidents are virtually nonexistent.<sup>272</sup> Nevertheless, mediators should consider taking the additional steps to minimize the risk of spreading zoonotic infections. This includes ensuring mediator and client hand hygiene before and after handlings, ensuring the dog is well groomed, and preventing dogs from licking participants. As stated earlier, the mediator should also ensure that the breed of dog is non-allergenic, closely monitor interactions with the dog, and make appropriate inquiries regarding client animal allergies.

### I. *Canine Liability Insurance*

While Dog-Assisted Interventions are typically safe, dog bites and zoonotic infections can occur. In order to protect against liability arising from these risks, mediators should consider carrying canine liability insurance. While this type of insurance is readily available for a reasonable cost in Canada, for instance, some policies exclude certain breeds of dogs that have a history of biting and aggressive behavior.<sup>273</sup>

## XII. RECOMMENDATIONS FOR FUTURE RESEARCH

Further investigation into the effects of Animal-Assisted Intervention on our ability to resolve conflict is essential. We require much more research to fully understand and better appreciate the impact of Dog-Assisted Interventions in mediation. Given the benefits of Animal-Assisted Interventions on human emotions, sociability, and trust, it follows that the research must be broadened to include self-report surveys from mediators and parties participating in CAMs as well as carefully controlled and empirically-based research that provides concrete and measurable results. Researchers have principally focused on the value of Animal-Assisted Interventions for alleviating psychological and social suffering. Future research topics might also include examination of the effect of CAM on emotional intelligence, empathy, and trust. It could also include the possible impact of dogs on executive functioning capacity of parties to a dispute and in particular on their ability to control impulses, concentrate, think, reason,

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272. See Heidi DiSalvo et al., *Who let the dogs out? Infection control did: Utility of dogs in health care settings and infection control aspects*, 34 AM. J. OF INFECTION CONTROL 301, 301 (2005); Rebecca A. Johnson et al., *Animal-Assisted Interventions: Research Issues and Answers*, 24 W. J. OF NURSING RES. 422, 430 (2002).

273. *Insurance Coverage Available for Pets: The I.I.I. Offers Tips to Pet Owners on Various Insurance Options*, INS. INFO. INST. (Jan. 31, 2008), <https://www.iii.org/press-release/insurance-coverage-available-for-pets-013108>.

and plan while in a heightened emotional state arising from separation.

Dog research could also concentrate on physical indicators of stress during mediation, including heart rate and blood pressure, as well as emotions typically experienced by parties during a family law mediation, such as anger, anxiety, fear, depression, and loneliness. This could involve a study of stress biomarker indicators including cortisol, epinephrine, norepinephrine, IgA, and OT levels of the parties.

Additional studies could examine the effect of dogs on disputing parties' ability to communicate, learn, listen, and engage in creative problem solving, as well as the quality of their social interactions when dogs are present. Researchers may be able to determine a dog's effect on motivation and perseverance of parties to continue in mediations when emotions escalate, and understand how a dog facilitates or hinders the relationship between clients and mediators. While this is not an exhaustive list, the core objective would be to see if or how introducing trained therapy dogs in appropriate circumstances can enhance the mediation process and how that affects a client's satisfaction with the mediation process. This research may ultimately lead to establishing a standard of best practices and protocols for incorporating CAMs into mediation.

Mediators do not currently complement their mediation practice with Animal-Assisted Interventions. Consequently, finding mediators and parties to participate in research may be difficult; however, other viable options exist. For instance, researchers may wish to consider pilot programs involving university law professors and law students studying dispute resolution at universities with legal clinics that provide mediation services to members of the public. These university-run programs provide a unique and ideal venue for moving this research forward. They offer the expertise of those providing instruction, a strong volunteer base of students, and a potentially large database of subjects. The diverse and potentially large sample size offered in universities increases the statistical power and the capacity to generalize results, thus allowing researchers to consider differences in sex, age, culture, personality, experience, and attitudes of the parties and mediators toward Companion-Animals. Universities possess the financial and professional resources necessary to measure and evaluate pilot programs. As such, universities can also create opportunities for a variety of disciplines to work together at increasing the output and quality of research.

The study of Human-Animal Interactions bridges many fields. The “[i]nterdisciplinary collaboration among these and other fields has the potential to exponentially increase the output of human-animal interaction research, and subsequently the financial and political support of its programming on a practical level.”<sup>274</sup> University-based CAM pilot programs provide opportunities for multidisciplinary brainstorming, focus groups, informational meetings, peer feedback, and experiential study. This may in turn result in new and improved CAM strategies and models.

In summary, while research has clearly shown that Animal-Assisted Interventions can benefit humans’ physical and mental well-being, there is currently little if any research on the potential of using companion animals in the field of dispute resolution. Further, there are few mediators employing animals into their practice to whom we can turn for guidance or thoughts on the matter. Clearly, researchers need to broaden their focus to obtain scientifically sound, valid, and reliable evidence on the effects of Animal-Assisted Interventions in the field of dispute resolution. In the meantime, while mediators will no doubt face numerous challenges not specifically addressed by this Article, the potential to dramatically improve the process for those involved will certainly prove rewarding.

### XIII. ETHICAL CONSIDERATIONS

In addition to ethical obligations to clients, CAM also requires mediators to consider their ethical obligations to the animals working with them. In addition to reviewing the safety, well-being, and best interests of the parties, the mediators must also take into account the interests and welfare of the animal and acknowledge the animal’s role as a fellow professional. Additionally, the mediator needs to remember that as a working animal, certain freedoms have been taken away.<sup>275</sup>

Not surprisingly, there are no codes of ethics addressing mediators’ duties and responsibilities to companion animals. This being the case, the one place we can turn to for guidance and direction are codes of ethics currently in place for those engaged in Animal-Assisted Therapy. One such code is the *AAI Code of Practice* (UK) produced by the Society for Companion Animal Studies (SCAC) for

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274. O’Haire, *supra* note 12, at 232.

275. See Bains, *supra* note 21, at 44.

the field of Animal-Assisted Interventions in the UK.<sup>276</sup> The code offers guidance on best practice for delivering Animal-Assisted Interventions effectively and safely and is organized into seven main sections: participants, animals, program planning and implementation, qualifications and training, health and safety, risk assessments, and ethical considerations.

Perhaps the most fundamental ethical consideration for mediators wishing to practice CAM, outside of ethical obligation to clients, is avoiding animal exploitation. Exploitation may be avoided by ensuring that mediation dogs are trained to work and be around others, are open to human contact, and benefit from the experience. It is also important to make sure that clients are informed about these ethical considerations.<sup>277</sup> It is important, for instance, that mediators take the time to remind parties that the dog is a working dog and to instruct clients how they should and should not interact with the animal. Of course, as mentioned previously, it is also essential that the mediator is continuously present and attuned to the animal's reactions and monitors its comfort or discomfort.<sup>278</sup>

#### XIV. CONCLUSION

A family law mediator's objective is to bring a potentially fractious dispute to a fair and reasonable solution; however, knowing that thirty to forty percent of family mediation participants complain of not feeling understood, mediators must also ask themselves what they can do to make the process even better to improve client satisfaction.<sup>279</sup> Mediators owe it to their clients and themselves to be open to new and innovative approaches to reaching mediation objectives. Effective mediators adopt intelligent, holistic, and multidimensional strategies to effectively deal with emotions and facilitate constructive communications.

Humans have benefitted from their relationship with dogs for over 12,000 years. Since the 1960s, Animal-Assisted Interventions have been scientifically shown to improve our physical, psychological, and social well-being. Numerous studies and considerable experience from other disciplines have provided convincing evidence of a dog's ability to bring stability to one's affective and cognitive disposition.

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276. See *Animal-Assisted Interventions Code of Practice for the UK*, SOC'Y FOR COMPANION ANIMAL STUD. (June 2013), <http://www.scas.org.uk/wp-content/uploads/2013/06/AAI-Code-of-Practice-SCAS-June-2013.pdf>.

277. See Bains, *supra* note 21, at 44.

278. *Id.* at 46.

279. See Pearson, *supra* note 192, at 1.

Several of these studies also provide evidence of dogs' abilities to serve as catalysts for positive human social interactions. Recognizing these various benefits, hospitals, nursing homes, public service programs, schools, universities, prisons, counselling agencies, and courts have successfully used dogs, when appropriate, for the benefit of their constituents.

Although research and experience confirm significant benefits of Human-Animal Interactions, dispute resolution professionals have been slow to recognize the importance of human-animal bonds in theory, research, and practice. If dogs can reduce stress, promote trust, and foster stronger and more effective communications between parties, it would make sense for mediators and researchers to consider and explore the potential benefits of using dogs in mediation. Further studies in the area will advance our understanding of the connection between dogs and human health and facilitate the shaping of future mediation practice for mediators wishing to include dogs in their practice.

While dogs are not a panacea for moderating stress and facilitating communications, in appropriate situations, they can serve as a valuable mediation tool. The potential benefits of resolving a family law dispute by strategically incorporating dogs into the mediation process are indisputable. Emerging literature confirms that dogs have the potential to help mediators manage emotions, promote constructive communication, and encourage social interactions. The appropriate inclusion of dogs in mediation is an inexpensive and worthwhile addition to the mediation process that enhances, facilitates, and supports traditional mediation strategies.

CAM is a nontraditional and complementary approach that offers tremendous potential for favorably influencing the short-term encounters that occur during mediations and changing how disputants feel about their conflict. With proper precautions, CAM poses little if any risk. An appropriately designed dispute resolution process that ethically and strategically incorporates the use of dogs will assist mediators in managing conflict at the outset of a mediation by helping to keep negotiations on track, before escalating emotions create barriers to conflict resolution. During the mediation, an appropriately designed CAM process will further assist mediators by helping them maintain a calm and positive atmosphere in which parties can constructively raise, discuss, and resolve difficult issues, such as issues that are often avoided or the parties' needs to vent and be heard.

By facilitating the mediator's ability to address not only the legal issues but also these hidden issues, CAM represents a significant opportunity for more holistic and satisfactory outcomes and greater overall appreciation and respect for the mediation process.