APPENDIX I

Theoretical Framework for Animal Assisted Interventions As Violence Prevention Strategy

Randall Lockwood, Ph.D., Senior Vice President for Anti-Cruelty Initiatives and Legislative Services, ASPCA
Violent or Criminal Behavior Constitutes a Choice

"As any parent knows, youths are more likely to show a lack of maturity and an undeveloped sense of responsibility. These qualities often result in impetuous and ill-considered actions and decisions."

- Supreme Court Justice Anthony Kennedy on outlawing the death penalty for crimes committed by those under 18
What are the roots of animal cruelty and other forms of violence?
"If empathy is the enemy of violence, depersonalization is its ally. The more we are able to create psychological distance between us and others, the more likely we are to commit acts of violence and aggression against them. By depersonalizing them, good, caring people can support barbaric treatment of others; they put them outside their own circle, into the category of ‘the other’.”

James Garbarino, *The Lost Boys*, 1999

Roots of Violence and Animal Cruelty

- Need for Power and Control
- Real or Perceived Injustice
  - History of Abuse/Neglect
  - Trauma
- Low Emotional Intelligence
  - Poor ability to read/communicate emotion
- Absence of Empathy

What are the consequences of exposure to family violence?

"To the young child, there is no gap between his soul and that of animals."

G. Stanley Hall (1904)
How Does Exposure to Family Violence and Cruelty to Animals Affect Children?

- Promotes desensitization and damages the capacity for empathy
- Creates the idea that they, like their pets, are expendable
- Damages the sense of safety and confidence in the ability of adults to protect them from harm
- Leads to acceptance of physical harm in allegedly loving relationships
- Fosters seeking of empowerment by inflicting pain and suffering
- Leads to imitation of abusive behaviors

Child Maltreatment as a Risk Factor for Psychiatric Illness

- Depression: 2-3 X's higher in CAN
- Suicide: 3-12 X's higher in CAN
- Borderline Personality Disorder: >60%
- Dissociative Identity Disorder: 85-98%
- Somatization: GI, GYN, Pelvic pain
- Self-Mutilation: 4 X's higher in CAN

Child Maltreatment as a Risk Factor of Violence & Crime

- Significantly higher delinquency arrest rates for CAN victims predicts adult criminality and violence
- Compared with matched controls, CAN increases crime 2-2.4x's in women
- 20% of maltreated children convicted of a serious crime
- Revictimization: Female CAN victims have 2-3 X's higher rate of rape as adults

Child Maltreatment as a Risk Factor for School Problems

- >50% of abused children have significant school problems (including conduct problems)
- >25% of abused children require special education programs
- Several studies suggest CAN decreases IQ
- CAN victims 2 X's more likely to be unemployed as adults

Trauma and Brain Damage: Human Data

- Combat PTSD patients had 8% decrease in right hippocampal volume compared with matched controls - correlated (r=0.64; p<0.05) with memory retention deficits (Bremner et al., 2005)
- Female abuse PTSD patients had 12% decrease in left hippocampal volume compared with controls (Bremner et al., 1997)

Abuse-Related Types of Psychopathology

- Impaired stress response (sensitivity to traumatic reminders, alterations in neuroendocrine stress response systems)
- Use and abuse of substances to regulate mood, sense of self, and behavior
- Interpersonal and relationship problems (attachment disorders, social withdrawal, promiscuity, antisocial behavior, spouse abuse, parenting problems)
"... these were the children who managed to grow up without being taught that poking something into a puppy's eye is harmful and should not be done, or that destroying property is against the rules."

- Robert K. Ressler on 'serial killers'

Whoever Fights Monsters (1992)

Mean Age of Appearance of Major Indicators of Conduct Disorder

- Cruelty to Animals – 6.5 years
- Stealing – 7.5 years
- Fire-setting – 8.0 years


What's going on in their heads?

1. Impulse control and arousal issues

Biological Factors in Violence

Functional PET scan

- The prefrontal cortex of many violent offenders is less metabolically active
**Gene-Neurochemistry-Environment Interactions**

- This gene (on the X chromosome) influences how the brain is wired during development by influencing levels of serotonin in the developing brain associated with smaller emotion-related structures, hyperactive alarm centers, and underactive impulse control circuitry.
- NMH studies suggest that men with the L-variant are more prone to impulsive violence, but only if they were abused as children.
- Women carry two copies of the gene. Usually at least one is the H-variant.

Modern technology and social habits affect the brain in ways not imagined by Mother Nature.

**2. Emotional intelligence and social intelligence issues**
Successful social animals are highly competent at communicating mood and intention.

Impairment of reading emotional cues

- Child victims of physical, emotional and or sexual abuse
- Various autism-related disorders
- Psychopathic personality

A variety of studies describe difficulties in accurately reading and responding to non-verbal emotional cues.

Does this apply to animal interactions?

Incidence of Animal Abuse in 53 Child-Abusing Families

Pets had injured a family member in 69% of animal abusive households vs. 6% non-abusive

**Strategies for Intervention**

- Build What is Absent
  - Develop or Redevelop Emotional and Communicative Competency
  - Capacity for Empathy
- Teach What was Overlooked
- Fix What is Broken
- Remove What is Toxic
Can empathy be taught in a day?

Can “mirror neurons” help us understand the development and/or destruction of empathy?

Mirror Neurons

- First described in the early 1990's by Italian neuroscientist Giacomo Rizzolatti and his colleagues who observed neurons in the brains of macaque monkeys that fired when they grabbed an object and also when they watched another monkey grab the same object.

Mirror Neurons

- More recent human studies have identified mirror neurons that are active when people see others expressing disgust or being touched.
- People show more powerful mirror responses to stimuli that are relevant to their experiences.
Mirror Neurons and Art Appreciation

“As we learn more about the biological basis of empathy and emotion... we can speak, quite precisely about the neuronal basis of the empathetic feelings in our bones, or in our veins, when we see particularly striking movement in a picture.”

David Freedberg, Ph.D., “Action, Empathy, and Emotion in the History of Art”
General Characteristics of Effective Intervention

- They provide multi-sensory experiences that engage a full range of senses and motor skills
- They occur in a context of social interaction with peers and counselors
- They take place in a safe and supportive environment
- They provide opportunities to associate appropriate behaviors with positive outcomes

Characteristics of Effective Intervention that Address the “Roots” of Violence

- They help participants identify and make good (non-violent) choices
- They empower participants to gain power and control on prosocial ways
- They allow frequent opportunities to send, receive, and interpret non-verbal communication
- They foster a sense of justice and fairness that extends beyond the individual
- They provide the resources to continue to remain resilient in a toxic world
Randall Lockwood, Ph.D.
Senior Vice President/ Anti-Cruelty Initiatives
and Legislative Services

email: randalll@aspca.org
phone 571 225-3463

WE ARE THEIR VOICE.