

American University in Cairo

## AUC Knowledge Fountain

---

Theses and Dissertations

Student Research

---

Spring 2-15-2022

# Animal Abuse in Egypt: An Assessment of Attitudes, Behaviors and Protective Factors Among University Students and Graduates.

Salma El Saedy

The American University in Cairo AUC, [salma.elsaedy@aucegypt.edu](mailto:salma.elsaedy@aucegypt.edu)

Follow this and additional works at: <https://fount.aucegypt.edu/etds>



Part of the [Animal Studies Commons](#), and the [Community Psychology Commons](#)

---

## Recommended Citation

### APA Citation

El Saedy, S. (2022). *Animal Abuse in Egypt: An Assessment of Attitudes, Behaviors and Protective Factors Among University Students and Graduates*. [Master's Thesis, the American University in Cairo]. AUC Knowledge Fountain.

<https://fount.aucegypt.edu/etds/1832>

### MLA Citation

El Saedy, Salma. *Animal Abuse in Egypt: An Assessment of Attitudes, Behaviors and Protective Factors Among University Students and Graduates*. 2022. American University in Cairo, Master's Thesis. AUC Knowledge Fountain.

<https://fount.aucegypt.edu/etds/1832>

This Master's Thesis is brought to you for free and open access by the Student Research at AUC Knowledge Fountain. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of AUC Knowledge Fountain. For more information, please contact [thesisadmin@aucegypt.edu](mailto:thesisadmin@aucegypt.edu).

The American University in Cairo  
School of Humanities and Social Sciences

Animal Abuse in Egypt: An Assessment of Attitudes, Behaviors and Protective Factors  
Among University Students and Graduates.

A Thesis Submitted to  
The Department of Psychology  
in partial fulfillment of the requirements for  
the degree of Master of Arts in Community Psychology

by Salma El Saedy

Under the supervision of Dr. Carie Forden

December 2021

### **Acknowledgments**

This thesis would not have been possible without the support of many people. First, I would like to thank my advisor and mentor, Dr. Carie Forden, for her continuous support, patience, and professionalism. I want to thank Dr. Yasmine Saleh and Dr. Kathryn Lance for their time and effort in reading my thesis and their feedback. I would also like to thank Professor Clive Phillips and the Centre for Animal Welfare and Ethics, School of Veterinary Science, University of Queensland, for their permission to translate and use the “Beliefs About the Use of Animals in Society” questionnaire. I would also like to thank all my colleagues in the thesis support group for their encouragement and support. Lastly, I want to thank my mother and sister for believing in me.

### **Abstract**

Animal abuse is an understudied problem in Egypt with possible ramifications on both non-human and human animals and links to interpersonal violence and conduct problems. This study aims to explore the attitudes and behaviors of Egyptian university students and graduates towards the treatment and use of animals in society and to test if exposure to animal abuse is associated with abusive behavior. The study also aims to identify possible protective factors against animal abuse among a group of positive deviants. A mixed-methods approach was used to study these questions; an online survey was disseminated over social media platforms, and 99 respondents from across Egypt completed the survey. From those respondents, eight positive deviants (five women and three men) were interviewed as a step to identify factors that led them to have positive attitudes toward the treatment of animals. The results, obtained by using descriptive statistics, t-tests, and chi-square tests, show relatively positive attitudes of the surveyed respondents towards animal treatment except for the adoption of vegetarian diets. A significant difference between the total attitudes of men and women was found, and a significant correlation was also found between the age of first exposure to animal abuse and committing abusive acts. Eight protective factors were identified from the interviews, including social learning and knowledge about animal sentience and characteristics. The results suggest the possible role of social learning and modeling behavior as drivers of animal abuse among the research participants.

## Table of Contents

<b>ACKNOWLEDGMENTS .....</b>	<b>2</b>
<b>ABSTRACT .....</b>	<b>3</b>
THEORIES EXPLAINING ANIMAL ABUSE .....	11
<i>Violence Graduation Hypothesis.....</i>	<i>12</i>
<i>Deviance Generalization Hypothesis .....</i>	<i>15</i>
<i>Displaced Aggression Theories .....</i>	<i>21</i>
SOCIAL REASONS .....	23
<i>Family Risk Factors .....</i>	<i>24</i>
<i>Sociodemographic Risk Factors .....</i>	<i>27</i>
<i>Macroenvironment .....</i>	<i>28</i>
PREVENTION AND PROTECTIVE FACTORS.....	32
ANIMALS IN EGYPT .....	36
AIM OF THE STUDY .....	42
<b>METHODS.....</b>	<b>42</b>
PARTICIPANTS .....	43
TOOLS .....	45
<i>Use of Animals in Society.....</i>	<i>45</i>
<i>Experience with Animals.....</i>	<i>45</i>
<i>Semi-structured Interview .....</i>	<i>47</i>
PROCEDURES .....	47
<i>Survey .....</i>	<i>48</i>
<i>Interview.....</i>	<i>48</i>
<b>RESULTS .....</b>	<b>49</b>
ONLINE SURVEY ANALYSIS .....	49

<i>Attitudes toward Treatment of Animals</i> .....	49
<i>Pet Ownership</i> .....	51
<i>Exposure to Halal Slaughter</i> .....	51
<i>Exposure to Animal Abuse</i> .....	52
<i>Committing Acts of Animal Abuse</i> .....	54
SEMI-STRUCTURED INTERVIEWS .....	58
<i>Feelings and Attitudes</i> .....	59
<i>Behaviors</i> .....	61
<i>Experience with Abuse</i> .....	62
<i>World View</i> .....	64
<i>Protective Factors</i> .....	66
<b>DISCUSSION</b> .....	<b>72</b>
OVERALL ATTITUDES TOWARD ANIMALS .....	73
LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH .....	80
RECOMMENDATIONS FOR PREVENTION OF ANIMAL ABUSE .....	82
<b>REFERENCES</b> .....	<b>84</b>
<b>APPENDICES</b> .....	<b>101</b>
APPENDIX A: ENGLISH CONSENT FORMS .....	101
APPENDIX B: ARABIC CONSENT FORMS .....	103
APPENDIX C: ENGLISH SURVEY .....	105
APPENDIX D: SEMI-STRUCTURED INTERVIEW .....	111
APPENDIX E: ARABIC SURVEY .....	112
APPENDIX F: ARABIC SEMI-STRUCTURED INTERVIEW .....	117

**List of Tables**

TABLE 1 .....44

TABLE 2 .....50

TABLE 3 .....52

TABLE 4 .....55

**List of Figures**

FIGURE 1 .....55

FIGURE 2 .....58

### **Animal Abuse in Egypt: An Assessment of Attitudes, Behaviors and Protective Factors Among University Students and Graduates.**

The study of animal abuse began in the second half of the twentieth century. Macdonald (1961) created what he called the Macdonald triad or the homicidal triad, where he listed animal abuse along with fire setting in childhood and bedwetting after the age of five, as indicators for later aggression against humans (as cited in Arluke et al., 1999; Gullone, 2012; Hensley, Tallichet and Dutkiewicz, 2009; Tallichet and Hensley, 2004; Wright and Hensley, 2003). Tapia (1971) was the first to systematically study children who abused animals by examining 18 cases of young children selected from the child psychiatry unit at the University of Missouri School of Medicine who had animal abuse as their main behavioral complaint. Since then, the study of animal abuse has developed and has been examined within different contexts such as its association with crime (Levitt, Hoffer & Loper, 2016; Kellert & Felthous, 1985), child abuse and maltreatment (Ascione, 2004, 2005), and intimate partner violence (Ascione, 2007). In 1987, animal abuse was introduced as a diagnostic criterion for conduct disorder in the revised edition of the third Diagnostic and Statistical Manual of Mental Disorders (DSM) (DSM-III-R; American Psychiatric Association, 1987). In the fifth and current edition of the DSM, being physically aggressive towards animals is featured within the first diagnostic criterion of intermittent explosive disorder along with verbal aggression and physical aggression towards other individuals and property. The phrase “has been physically cruel to animals” is listed as one of the diagnostic criteria of conduct disorder along with bullying, physical fighting and stealing. (5th ed.; *DSM-5*; American Psychiatric Association, 2013).

It is important to study animal abuse for several reasons particularly its connection to human abuse. Animal abuse is linked to human violence, where a pattern of animal-directed



cruelty can be associated with a pattern of human-directed aggression. Thus, its detection can be used for early prevention against later interpersonal violence (Agnew, 1998, Felthous & Kellert, 1986). It is also a marker of antisocial behavior and impulse control issues. Animal abuse is strongly associated with interpersonal violence such as bullying and delinquency during childhood, and violent and non-violent criminal offenses in adulthood, and a marker of family dysfunction and domestic violence (Flynn, 2011). Levitt, Hoffer, and Loper (2016) investigated official criminal records of 150 people arrested for animal abuse offenses looking for other acts of interpersonal violence, sexual abuse, and neglect toward other animals or people. They found that 144 out of the 150 sampled had criminal offenses either before or after their animal abuse arrest, with 41% of the sample arrested for interpersonal violence offenses at least once and 18% for sexual offenses. They also found a significant relationship between abusing one's pet and domestic violence as well as a significant relationship between sexually abusing an animal and human-directed sexual abuse. Flynn (1999a) surveyed 267 undergraduate university students to investigate the possible link between animal abuse and attitudes towards interpersonal violence. He found that about 18% of the sample had committed at least one act of animal abuse. Furthermore, those who had committed those acts during childhood had attitudes that favored violence towards women and children in family settings.

Another important reason for studying animal abuse is that animals are worthy of moral consideration. Their abuse should not be studied only because of how it affects humans or anthropocentric motives, but also because of the vile suffering animals must endure at the hands of humans (Beirne 1999; Flynn, 2011). As Beirne (1999) explained, the animal protection and liberation movement started with the moral philosophers in the 1970's, 1980's and early 1990's refusal of the notion introduced by the philosopher Descartes in the seventeenth century, that

animals are not capable of feeling pain and are moral equals to machines. Moral philosophers differed amongst themselves in how to refute this philosophy. Three main theories were used: the utilitarian theory by Singer in 1975, the rights theory by Regan in 1983, and the feminist theory.

The utilitarian view explains that all non-human animals are capable of feeling pain and avoiding suffering. Thus, our moral duty as humans is to protect them from suffering. The rights theory explains that all beings who have interests, perceptions, memory, feelings of pain and pleasure, and beliefs are called “subject-of-a life.” Regan (1983) listed non-human animals, especially mammals, as “subject-of-a life” since they possess some of those characteristics. He then goes on to divide “subjects-of-a-life” into moral agents and moral patients. Moral agents have moral rights (basic universal rights), are conscious, and have developed capabilities. Agents also have obligations towards moral patients who are more vulnerable and not morally accountable such as children and the mentally ill. Regan (1983) explained that non-human animals fall under the category of moral patients whose rights need to be defended by moral agents. The third theory is the feminist theory, which criticized the previous two theories for neglecting the role of sentiments and attachment to animals, considered as “less than male” by male philosophers, thus centering emotional bonding with animals at the core of their animal protection theory.

The definition of animal abuse has varied widely. Felthous & Kellert (1986) used the term “substantial cruelty to animals” in their study and defined it “as a behavior pattern that deliberately, repeatedly, and unnecessarily causes hurt to vertebrate animals in such a way that is likely to cause them serious injury” (p. 57). Another widely used definition is Ascione’s; he defined animal abuse as “socially unacceptable behavior that intentionally causes unnecessary pain, suffering, or distress to and/or the death of an animal” (Ascione, 1999, p. 51). Others have

defined practices that cause pain or death to animals or threaten their welfare as animal abuse (Finsen & Finsen, 1994; Vermeulen & Odendaal, 1993). However, Agnew (1998) argued that the widely used definitions of animal abuse do not consider practices that are considered legal, such as factory farming and animal experimentation. Others have criticized these definitions because they exclude all forms of socially acceptable animal use like hunting, animal agriculture, using animals in research, and unintentional acts of violence (Flynn, 2001; Munro & Beaumont, 2005). A more comprehensive definition was introduced by Gullone (2014a):

Animal abuse is behavior performed repetitively and proactively by an individual with the deliberate intention of causing harm (i.e., pain, suffering, distress, and/or death) to an animal with the understanding that the animal is motivated to avoid that harm. Included in this definition are both physical harm and psychological harm. As with the literature on human aggression, animal abuse at the more extreme end of the aggression dimension (e.g., burning while alive, torture, murder, rape, assault as compared to teasing, hitting, tormenting) should be considered a violent subtype of animal cruelty. (p. 38)

This last definition excluded one-time acts of animal abuse and abuse fueled by nonbelief in animal mind. Belief in animal mind was defined by Morris et al. (2012, p.211) as “beliefs about the mental abilities and experiences of nonhuman animals.” Gullone’s (2014a) definition mainly focused on those who understand the motive of the animal to avoid harm and not those who lack awareness of the cognitive and emotional capabilities of animals. Other definitions differentiated between two types of abuse: physical or active abuse that causes pain like beating, hitting, and stabbing versus psychological or passive abuse like maternal deprivation, neglect, or not providing food and water (Levitt, Hoffer & Loper, 2016). For the purposes of this study, Ascione’s (1999) definition will be adopted. This definition was chosen because it allows for

exploring what is socially accepted in Egypt but may be considered abusive in other parts of the world. For example, the mass poisoning of stray animals is widely used to control stray populations in Egypt but is a condoned practice in the West. This definition also allows for the inclusion of one-time acts of abuse that may result from ignorance as opposed to repeated acts of abuse, which could be a sign of problematic patterns of behavior.

### **Theories Explaining Animal Abuse**

Kellert and Felthous (1985) have identified nine reasons individuals might engage in animal abuse: to tame the animal and eliminate bad behaviors; to punish the animal for wrongdoing; as an act of revenge against a specific species demonized for cultural reasons; directing aggression toward people using animals; proving one's dominance and aggression; for entertainment purposes; to take revenge against another person; as a way of anger displacement from people to animals; and lastly just for sadistic reasons. Since then, many studies have explored the reasons and motivations behind the perpetration of animal abuse. Gullone (2014b) explained that there are several risk factors that make animal abuse more likely, including biological factors (temperamental predisposition) such as callous-unemotional traits, and individual factors such as being male (Arluke & Luke, 1997; Coston & Protz, 1998), and being young (Arluke & Luke, 1997). There are also environmental factors that render animal abuse more likely. They include the microenvironment, such as parental violence towards children and spouses (e.g., Kellert & Felthous, 1985; Tapia, 1971), and the macroenvironment, such as societal norms and cultural attitudes (Agnew 1998; Flynn 2001). These individual and environmental factors can also interact and become bio-psycho-social factors (Tapia, 1971). Flynn (2011) listed several life experiences factors that can lead to animal abuse, such as being on the receiving end of abuse, witnessing parents or peers abuse animals, and witnessing domestic violence. He also

added that the behavior of bullying (both in the aggressor and victim) had been linked to animal abuse.

### ***Violence Graduation Hypothesis***

**Theory Overview.** One of the first theories proposed to explain animal abuse was the violence graduation hypothesis. This hypothesis was dominant from the 1970s to the 1990s, and its main premise was that animal abuse in childhood predicts violent behavior in adulthood (Kellert & Felthous, 1985; Merz-Perez, Heide, & Silverman, 2001). The research supporting this hypothesis involved a retrospective investigation into the link between the aggression of violent criminals and their childhood history of animal abuse. Hensley, Tallichet, and Dutkiewicz (2009) looked at the relationship between recurrent animal abuse during childhood and later repeated acts of interpersonal violence. They surveyed 180 inmates from one medium and one maximum-security prison in a Southern US state. They found that the greater the number of acts of animal abuse during childhood, the more likely the inmate engaged in repeated acts of interpersonal violence in adulthood. Others also found that animal abuse during childhood is predictive of and a precursor to violent behavior against humans during adulthood (Merz-Perez & Heide, 2004; Tallichet and Hensley, 2004; Wright & Hensley, 2003). While some studies reported no clear association between animal abuse and later interpersonal violence, Tallichet and Hensley (2004) argued that most of these studies only looked at single acts of animal abuse and focused on forensic charts review, not direct interviews with their subjects. They also found that the more acts of animal abuse were committed, the more likely the person was to engage in interpersonal violence later in adulthood. Since Tallichet and Hensley focused on incarcerated individuals, they also argued that even if repeated acts of animal abuse in the past may predict later

involvement in human violence, the issue could not be completely settled without investigating a large non-incarcerated youth population who had committed animal abuse.

**Theory Criticism.** The violence graduation hypothesis has received criticism since the data supporting this hypothesis is retrospective and based on self-reports. In addition to the non-generalizability of the hypothesis, the studies that support it were mainly collected from incarcerated individuals, implying that the temporal precedence of animal abuse cannot be conclusive without longitudinal studies and randomized control studies (Arluke et al., 1999; Beirne, 2004). Arluka et al. (1999) also argued that the supporters of the violence graduation hypothesis limited their investigation to the association between violence and animal abuse, neglecting all other offenses under antisocial behavior that are not tied to relational aggression, such as destruction of property. They conducted a study based on the official criminal records of animal abusers in Massachusetts using the definition of animal abuse by Vermeulen and Odendaal (1993), where animal abuse is intentionally inflicting physical pain to an animal. They then matched them with control subjects with similar demographic characteristics. They found that, compared to the control group, animal abusers were significantly more likely to engage in criminal activities, including interpersonal aggression offenses, the destruction of property, and drug-related offenses.

Arluka et al. (1999) explained why the violence graduation hypothesis receives wide support from animal rights advocates and the public. First, it is easier to draw attention to the maltreatment of animals if animal abuse predicts later violence, as governments, judges, and childcare workers might take it more seriously. Second, it is an easy target for people who want to combat violence in society. They argued that animal abuse should be used as a red flag for

other antisocial behavior, not only violent offenses, even if committed as separate, single, less severe acts of cruelty.

Flynn (2011) also criticized the graduation hypothesis by adding that it is difficult to determine whether animal abuse took place pre or post committing interpersonal violence since the nature of the studies conducted were mostly correlational in nature. Flynn argued that most of the samples used were not representative of the whole population since they focused on incarcerated criminals, who tend to exaggerate their violent acts to their interviewers so that they appear rougher and more violent than they already are. Another criticism by Flynn is that most of the research was focused on psychological factors and ignored the societal and cultural factors that can contribute to this problem. He argued that most people who abuse animals do not follow the trajectory of becoming criminal adults; these are “false positives” because considering them “criminals in the making” is an overestimation of deviance in society.

Gullone (2014a) argued that according to the literature on general aggression, repeated animal abuse in childhood can be considered an important behavior marker in predicting future engagement in other forms of aggression during adulthood. However, she added that the violence graduation hypothesis did not explain that animal abuse in childhood can co-occur with other forms of human-directed aggression. This can be explained by an association between animal abuse during childhood and antisocial behaviors since aggressive behaviors occur within the context of antisocial behavior. This can include stealing, lying, destruction of property, and sexual assault. In this case, animal abuse is better explained by the deviance generalization hypothesis.

### ***Deviance Generalization Hypothesis***

**Theory Overview.** The deviance generalization hypothesis explains that animal abuse mostly co-occurs with other antisocial behavior like lying, stealing, destruction of properties, and other crimes. It argues that those who engage in animal abuse are more likely to engage in other forms of antisocial behavior (Arluke et al., 1999; Gullone, 2012). Antisocial behaviors are norm and law violating behaviors, and all diagnostic criteria of conduct disorder in the DSM 5 represent antisocial behaviors. Antisocial behavior is comprised of aggressive acts against people and animals and non-aggressive acts like lying and crimes against property (Lahey, Waldman, & McBurnett, 1999). Conduct disorder is defined as “a repetitive and persistent pattern of behavior that violates the rights of others (e.g., aggression, vandalism, theft) or that violates major age-appropriate societal norms or rules (e.g., deceitfulness, truancy, running away from home)” (5th ed.; *DSM-5*; American Psychiatric Association, 2013, p.469; Frick and Dickens, 2006, p.59). As opposed to the violence graduation hypothesis, where the person who engages in animal abuse during childhood graduates to committing more severe aggressive acts later in adulthood, the deviance generalization hypothesis emphasizes the co-occurrence of acts of animal abuse and other antisocial acts. For example, animal abuse and bullying co-occurrence, whether the child was the perpetrator or the victim, was found (Baldry, 2005; Gullone & Robertson, 2008). This connection between animal abuse and human-directed violence was referred to as the “link” in both the violence graduation and the deviance generalization hypotheses (Flynn, 2012). After comparing two groups of criminal offenders, one with a history of substantial animal abuse and another with no comparable history, Gleyzer et al. (2002) found that the diagnosis of antisocial personality disorder and antisocial personality traits were more frequent in the group with a



history of animal abuse. They also found that substantial animal abuse during childhood is a red flag for later antisocial personality disorder diagnosis.

Felthous and Kellert (1986) interviewed 152 participants from four different categories: aggressive criminals (32), moderately aggressive criminals (18), non-aggressive criminals (52), and non-criminals (50). They found that 50% of the interviewed aggressive criminals reported substantial animal abuse versus eight percent of the non-aggressive criminals and six percent of the non-criminals, and surprisingly none of the moderately aggressive criminals reported substantial animal abuse. They tested the statistical significance of the link between repeated serious acts of animal abuse during childhood and human interpersonal violence and found support for this hypothesis. However, they claimed that their study does not support any predictive force for animal abuse during childhood on later interpersonal violence.

Committing animal abuse does not automatically signify that the perpetrator has a psychopathological problem; for this reason, Flynn (2011) and Gleyzer et al. (2002) stressed the importance of investigating the severity, recurrence, motivation, and nature of animal abuse before labeling the perpetrator as psychologically dysfunctional. Ascione, Thompson, and Black (1997) identified seven dimensions that animal abuse should be measured against in their Children and Animals Assessment Instrument (CAAI): severity of the abuse; the frequency of the acts of abuse; the duration or period where the abuse took place; the recency of the acts; the variation across animal species; the degree of the sentience of the animals; the secrecy or covertness of the acts; the isolation (individual acts or within a group); and empathy or remorse over the abused animal.

**Link to Conduct Disorder.** The inclusion of animal abuse as one of the diagnostic criteria of conduct disorder since the revised edition of the DSM-III has helped draw attention to

this problem. Luk, Staiger, Wong, & Mathai (1999) found that a total of 28% of children diagnosed with conduct disorder engaged in animal abuse and fell on the destructive end of conduct disorder. They also came from dysfunctional families and were primarily male compared to those who did not engage in animal abuse. It was also found that older children with conduct problems identified as cruel to animals showed some signs of psychopathy compared to those who were non-cruel to animals, indicating possible links to psychopathy. Frick et al. (1993) has pointed out that animal abuse, which starts at the age of 6.5 years in children with conduct disorder, is one of the earliest indicators of the disorder. Other indicators include fighting, bullying, and assaulting, starting at six, seven, and seven and a half years. At the same time, animal abuse perpetrated by younger children can be attributed to curiosity and exploration since they have not yet learned societal norms about the treatment of animals (Ascione, Thompson, and Black, 1997).

There are two types of conduct disorder, childhood-onset, and adolescent-onset. Those with childhood-onset are more likely to follow a trajectory of aggression and antisocial behavior in adulthood. A distinct subgroup of antisocial youth within the childhood-onset category is characterized by callous and unemotional traits. This group falls at the extreme end of the conduct disorder and engages in more severe forms of aggression. Gullone (2014b) identified callous and unemotional traits in children as a risk factor for perpetrating animal abuse. Children with callous and unemotional traits lack empathy and exhibit manipulateness and egocentricity, which are aspects of antisocial behavior (Lahey, Waldman, & McBurnett, 1999). Callous and unemotional traits in children are stable through adolescence and adulthood, which explains why children who engage in aggression at a young age will most probably continue to be aggressive in adulthood and also predicts the development of antisocial behavior and psychopathy in

adulthood (Blonigen, Hicks, Kruger, Patrick, & Iacono, 2006). Dadds, Whiting, and Hawes (2006) wanted to test if childhood cruelty to animals is one of the early indicators of the early psychopathy pathway. This says that temperamental predispositions, like callous and unemotional traits, explain the development of antisocial behavior, other than the existence of childhood externalizing problems, family dysfunctions, and poor parenting. They found support for the early psychopathy pathway where childhood animal abuse is associated with the existence of callous and unemotional traits. However, they did not find a strong association between problematic family experiences and childhood animal abuse.

Even though these traits are relatively stable, some studies have shown that several children have experienced a decrease in these traits within a better environment, such as higher socioeconomic status and better parenting (Frick et al., 2003). For the adolescent-onset, mentoring programs that focus on identity development and positive peer relations are best. For the childhood-onset with no callous-unemotional traits, interventions using anger control and better parenting are best. In contrast, for those with callous-unemotional traits, teaching parents different methods to increase empathy in their children is shown to be more effective (Frick and Dickens, 2006).

**The Role of Empathy.** Lack of empathy is not the only factor that leads to animal abuse but is among a number of factors that cause aggressive/antisocial behaviors. Empathy is a construct comprised of both cognitive empathy and affective empathy. Cognitive empathy is responsible for perspective-taking and understanding the other person's perspective or response. Affective empathy is when a person shares the emotional experience with others (empathetic concern) and reacts to this experience by showing personal distress (Zahn-Waxler & Radke-

Yarrow, 1990). It is not clear which type of empathy is responsible for which type of aggressive/antisocial behavior (Herpetz & Sass, 2000)

Empathy deficiency is linked to animal abuse inclination (Alleyne, Tilston, Parfitt, & Butcher, 2015) and negative attitudes concerning the treatment of animals (Erlanger & Tsytsarev, 2012). In a sample of 290 children of mothers who suffered from intimate partner violence, Hartman, Hageman, Williams, St. Mary, and Ascione (2019) found that 16.8% of children abused an animal at least once in their lives. It was also found that low levels of cognitive empathy (and not affective empathy) and higher levels of callousness traits predicted animal abuse perpetrated by children. However, Hartman et al. (2019) explained that their results were inconsistent with most studies that found that low levels of affective empathy characterize those who exhibit antisocial behaviors. They argued that the small sample size of the children animal abusers ( $n = 49$ ) could have affected the power of their results. Signal and Taylor (2007) compared a general community sample ( $n = 543$ ) with a sample of people working in animal protection ( $n = 389$ ) on two scales: empathy with both affective (Empathetic Concern) and cognitive (Perspective Taking) subscales and attitudes towards animal treatment scale. They found that the subjects working in the animal protection field scored higher on all three scales suggesting a stronger link between human-directed empathy and attitudes towards the treatment of animals. It was also found that the correlation between the affective component of the empathy scale and the attitudes towards the treatment of animals' scale was the strongest among the animal protection workers suggesting that affective empathy could encompass both human and animal-directed empathy. A similar significant relationship between the Empathetic Concern subscale and attitudes towards animal treatment scales was found by Taylor and Signal (2005) among a sample of 194 undergraduates.

Empathy development has been shown to be a protective factor against the development of externalizing problems since fostering empathy and concern for others can be an effective prevention tool in children who exhibit early signs of externalizing problems. These problems depend on children's socialization, and parenting since it was shown that angry, highly punitive, and authoritarian parenting hinders the development of prosocial behaviors in children both with and without behavior problems (Hastings, Zhan-Waxler, Robinson, Usher, & Bridges, 2000). Thompson and Gullone (2003) explained that promoting animal empathy leads to a reduction in interpersonal violence. However, McPhedran (2009) argued that evidence supporting this theory is inconclusive and that empathy deficiency alone is not the root of aggression. She added that empathy deficiency could play a role in the development of aggressive behaviors, but so does being exposed to violence as a child (with or without animal-directed violence) and being at the receiving end of dysfunctional parenting that does not focus on promoting prosocial behavior. Human directed empathy and animal directed empathy may be correlated, but they are not one simple construct. They are different depending on the target of the empathy, which suggests that empathy is modular or comes in different dimensions independent from one another based on the target. Furthermore, compassionate people towards animals might not necessarily share the same emotion with humans and vice versa (McPhedran, 2009; Paul 2000).

**Non-Western Studies.** Most of these studies were conducted in the West, where there are norms promoting the humane treatment of animals; however, a few studies examined the link between childhood animal abuse and conduct problems in non-Western countries where values toward animals may be different. Mellor, Yeow, Hapidzal, Yamamoto, Yokoyama, and Nobuzane (2009) studied animal abuse perpetrated by children across Australia, Japan, and Malaysia. Those three countries vary widely in norms and religious practices. Japan has

relatively recent animal protection laws, has Buddhism as the predominant religion which promotes kindness to all beings but also has societal norms like having utilitarian views of animals due to their agricultural background, owning dogs according to fashion trends, and dumping them when they are no longer in fashion or a source of fun, and culture around the tatami mat where animals are not allowed on the mat in homes.

In Malaysia, the majority is Muslim, and even though Islam dictates that any animal kept under care, whether as a pet or as a working animal, should be provided with adequate shelter, food, water, and veterinary care and should not be kept in small cages, there is an aversion toward dogs because some Islamic sects see them as impure. There are also few and feeble animal protection laws. In Australia, animal protection laws are strong and well established, and there is a large percentage of pet ownership among the population. Even though these differences exist, the authors did not find a significant difference between sampled children on their selected animal cruelty scale. They only found that boys and younger children commit more acts of animal abuse. However, the authors' reliance on parents' reports of their children's behavior was shown to be inaccurate because children typically report higher levels of abuse than their parents (Dadds et al., 2004). Another study was conducted on 379 children between the ages of 6 and 12 in Malaysia. It found an association between animal abuse perpetrated by children and externalizing behavior (hyperactivity in boys and conduct problems in girls) (Mellor, Yeow, Mamat, and Mohd Hapidzal, 2008).

### ***Displaced Aggression Theories***

Another theory explaining animal abuse is the frustration-aggression theory by Dollard and Miller (1950). They theorized that all people seek affection and approval from people around them, and when they fail to receive those emotions, they get frustrated and angry and commit

violence towards other people. Chan et al. (2019) added that since animals are perceived as weaker, children easily commit violence against them when they are frustrated. This can also happen to children who are targets of humiliation. Merz-Perez and Heidi (2004) describe this as displaced aggression theory, where humiliated children feel a sense of power by harming weaker parties (other children and animals) to protect themselves from the powerlessness and fear they feel when they are humiliated.

Alleyne and Parfitt (2018) studied the factors that distinguish animal abusers from non-abuser offenders (people who did not abuse animals but engage in other antisocial behavior) and non-offenders to see what separates animal abuse from other antisocial behavior. They studied 384 people from a community sample and did a retrospective correlational study. The three groups formed the independent variables and were classified using the Aggression Toward Animals Scale measuring animal abuse (Gupta & Beach, 2001) and the Illegal Behavior Checklist measuring antisocial behavior (McCoy et al., 2006). Animal abusers and non-abuse offenders shared similar demographic characteristics like age, gender, ethnicity, and childhood adversities. They found that the animal abuse group reported witnessing legal killings of animals during childhood, had lower animal-directed empathy, and lower self-esteem than the non-abuse offenders. The authors explain that the primary difference between the two groups was witnessing legal (not illegal) animal killing during childhood, and this could have desensitized them to animal suffering. The combination of a low level of animal-directed empathy and low self-esteem suggests that people who feel threatened and suffer from low self-esteem may prove their self-worth by displaying aggression towards animals, showing domination when the opponent (animal) cannot fight back. Gupta (2008) found that aggression is driven by rejection

sensitivity, a trait that characterizes individuals who react in extreme forms to rejection or in fear of it, also applies in the case of animal abuse.

Chan et al. (2019) also used the sexual polymorphous theory to explain animal abuse during childhood. This theory describes that during the development phase of some children, aggressive tendencies and sexual excitement gets fused; therefore, committing acts of violence against humans and animals later, including bestiality, can bring sexual excitement (Merz-Perez and Heidi, 2004).

### **Social Reasons**

Animal abuse in its different forms, from neglect to physical abuse, has been historically explained by an individualistic psychopathological model, not a sociological model. Sociologists have long ignored the study of human-animal interaction (Bierne 2002, Flynn, 2001, 2012).

According to Flynn (2012), some of the reasons why animal abuse investigation was left out of sociological and criminal research until recently are: researchers attribute more importance to human violence; there are fewer reports of animal abuse; animals cannot speak for themselves, and incidents of animal abuse have been seen as isolated acts. However, studying animal abuse from a sociological standpoint can help advance our understanding of inequality and the abuse of social power (Flynn, 2001). It can allow us to see how our social world is constructed and how we perceive our relationship with other living beings (Arluke and Sanders, 1996).

Psychopathological justifications alone are not enough to explain the motives behind animal abuse, and it is important to look at it as a social problem as well. As Ascione and Shapiro (2009) explained, the severity of animal abuse is not necessarily the same as the severity of the abuser's psychological issues. They gave the example of the great suffering endured by a neglected animal whose owner's behavior is not necessarily caused by psychopathology but



other factors. Factors that can include the lack of financial resources to take care of the animal, attitudes influenced by a particular culture or subculture, or an individual lack of sense of responsibility. As Burchfield (2016) stated, animal abuse is a sociological problem because it almost always occurs within the framework of relationships like families, peer groups, or neighborhoods.

### ***Family Risk Factors***

A number of studies have investigated the connection between animal abuse and experiences of childhood adversity. Gullone (2014b) listed family and parenting experience as a risk factor for developing aggressive and antisocial behavior, including animal abuse, and emphasized the interaction between biology and aggression. She explained that while biology can predict the development of antisocial behavior, children living in high-risk families, characterized by parents being cold, neglectful, and less nurturing, become more aggressive with age as a way to survive their environment.

Kellert and Felthous (1985) found that aggressive criminals who have a history of animal abuse were brought up in homes where domestic violence, specifically paternal violence, and alcoholism, existed. They argued that abused children use animal abuse to displace their aggression and hostility. Tingle, Barnard, Robbins, Newman, and Hutchinson (1986) conducted admissions interviews with 21 rapists and 43 child molesters at the North Florida Evaluation and Treatment Center over 21 months. They found that both groups grew up in dysfunctional family settings and were subject to physical and sexual abuse. Additionally, they found that 47.6% of rapists and 27.9% of child molesters in the sample committed some form of abusive behavior towards animals during childhood. Ascione and Shapiro (2009) found that animal abuse was higher among children who had experienced abuse themselves or witnessed intimate partner

violence than non-abused children. DeGue and DiLillo (2009) also conducted a study across three American universities involving 860 university students. They found that 60% of the participants who committed animal abuse or witnessed it were victims of child maltreatment, neglect, sexual and physical abuse, or witnessed domestic violence. Duncan, Thomas, and Miller (2005) also found that people cruel to animals are twice as likely to have experienced sexual or physical abuse as children. Henry and Sanders (2005) found that those who reported engaging in multiple acts of animal abuse also reported above-median history of victimization and perpetration of physical and verbal bullying. Marcus-Newhall, Pederson, Carlson, and Miller (2000) explained that children who are subject to abuse have a sense of powerlessness and identifying with their abusers gives them a sense of control, and their perception of animals as less powerful makes them an easier target to exert this type of control (Ascione & Arkow, 1999). Other studies found that the association between animal abuse, family experience, and the development of antisocial behavior is similar to the rest of the literature on aggression where growing up in troubled or unstable families is associated with childhood onset-antisocial behavior (Duncan, Thomas & Miller, 2005; Flynn, 1999b; Miller & Knutson, 1997).

Furthermore, there is an established link between animal abuse and domestic violence (Ascione et al., 2007; Flynn, 2000a and 2000b; Volant, Johnson, Gullone, & Coleman, 2008). Hutton (1998) found that companion animals of abused women are also at the receiving end of abuse by the perpetrators of the abuse, as a way to control and hurt them and their children, as some of the abused women refused or postponed leaving their abused homes in fear that their companion animals may be killed or hurt. Even though not all perpetrators of domestic violence abuse animals, Simmons and Lehmann (2007) found that those who do abuse animals also engage in more severe forms of violence, including marital rape and emotional manipulation.

The general literature on aggression shows that the development of aggressive behaviors is strongly influenced by witnessing aggression (Cummings, 1987; Davies, Myers, Cummings, & Heindel, 1999). In accordance with the research on aggression and violence in families, as well as the theory of intergenerational transmission of violence (Widom, 1989), witnessing parents and significant others abuse animals also predicts future involvement in animal abuse (Ascione et al., 2007; Baldry, 2005; Currie, 2006; DeGue & DiLillo, 2009; Flynn, 2012; Gullone, 2014b; McPhedran, 2009; Thompson & Gullone, 2006). Parents' acts of cruelty against animals shape the attitudes of their children and form normative beliefs (Anderson & Huesmann, 2003), where children believe that animal abuse and aggression are normal. Other studies also found that witnessing animal abuse not only predicts future animal abuse behavior but also bullying behavior (Gullone & Robertson, 2008) and general delinquency (Henry 2004a, 2004b), linking animal-directed and human-directed aggression.

Gullone (2014b) explained the importance of the child's learning experience in forming cognitive structures that predict childhood animal abuse. She explained that children who grow up in environments favoring aggression where they witness or experience abuse learn aggressive behaviors and attitudes and develop scripts that lead to hostile attribution bias where they perceive aggression, even in situations that have none. Anderson and Bushman (2002) explained that this type of bias is especially prominent in unclear and uncertain situations, and Dadds (2008) argued that since animals tend to communicate in more ambiguous ways than humans' and can send vague cues, children tend to perceive these cues and signals as hostile. The impact of witnessing animal abuse on later acts of animal abuse can also be explained by the social learning theory through observational learning (Bandura, 1977, 1978), where children are more

likely to engage in a certain behavior if they observe those around them (parents, siblings, peers, TV characters) commit this behavior which is then reinforced by being rewarded or unpunished.

Peers have also been found to influence the attitudes and beliefs of youth when it comes to general aggression (Huesmann & Guerra, 1997) and animal abuse. Youth were found to engage in animal abuse more often when they were around their peers (Chan et al., 2019) or if they wanted to gain approval from them (Arluke & Luke, 1997).

### ***Sociodemographic Risk Factors***

Research shows that most acts of animal abuse are committed by males (Arluke & Luke, 1997; Baldry, 2005; Dadds et al., 2004; Flynn, 2001; Miller and Knutson, 1997; Thompson & Gullone, 2006). This is consistent with the literature on general antisocial behavior, where there are more male offenders in general and animal abusers in particular across all age categories (Gullone, 2014; Loeber & Hay, 1997). The socialization of male children favors aggression and dominance, and animal abuse can be an outlet to practice those values. Furthermore, the notion of masculinity based on violence can be further reinforced if these behaviors go unpunished or even applauded by family and peers (Arluke & Luke, 1997; Flynn, 1999a).

Another risk factor for animal abuse is age. It has been found that people in late adolescence and early adulthood are more likely to engage in animal abuse (Arluke & Luke, 1997). Flynn (2001) argues that in the US, older adult male perpetrators shoot dogs because they see them as a threat to their families, and they feel they need to self-protect, while younger men are less likely to have access to firearms and will most likely commit an act of abuse as an end in itself. Gullone (2014b) explains that this is because cognitive functioning and emotional regulation develop as we age. In other words, adults are more capable of managing their own emotions and behaviors and making better decisions.

Arluke and Luke (1997) analyzed all animal abuse cases processed by the Massachusetts Society for Prevention of Cruelty to animals between the years 1975 and 1996. They found that almost 97% of the abusers were males, and over 50% were over the age of 30. They also found that most adult cruelty cases were targeted at dogs while over 50% of the cruelty cases committed by adolescents were directed at cats, which might be due to the smaller size of the cat. The adult abusers were significantly more likely to commit their abuse alone as opposed to the adolescents who did so among their peers, consistent with research on adolescent interpersonal violence and the psychological and social factors associated with hate crimes perpetrated by adolescents.

### ***Macroenvironment***

As Flynn (2001) stated, some macro variables also influence the behavior of animal abuse, such as societal norms and laws, religious beliefs, public attitudes towards animals or a specific species, and others. On the level of societal norms, Flynn (2001) argued that in the United States, animal protection laws are weak and mainly protect the humans and not the animals themselves since animals do not have legal status and are considered the property of their human owners, who are most likely the abusers themselves. Weak laws and sentences lead to more animal abuse. Also, there is reluctance in enforcing animal abuse laws because of the public's attitude towards animals, the difficulty in defining cruelty, and the lack of funds to enforce these laws (Lacroix, 1999).

As for public attitudes towards animals, Flynn (2001) said that the greater the acceptance of animal abuse in a society is, the more animal abuse there is, and the weaker the sanctions. He linked it to Straus's "cultural spillover theory" (Straus, 1991; Straus & Donnelly, 1994) that describes how socially accepted forms of violence can lead to more unacceptable forms of

violence. Burchfield (2016) then argued that if animal abuse is socially acceptable in some context, it can later translate into more severe forms of violence against animals and against humans. Kellert (1993) has shown that social and cultural differences between countries also impact attitudes toward animal abuse. It was shown that the less industrialized a country is, the less they are opposed to animal abuse because they have a more utilitarian attitude towards animals and caring about animals is considered a luxury (Pifer et al., 1994). Phillips and McCulloch (2005) assessed the cultural attitudes of 16 different nationalities of Cambridge University students studying biology regarding the use of animals in society. They found significant differences between nationalities when it came to attitudes towards animal treatment, as well as animal sentience and suffering during life. They attributed these differences to societal and religious differences.

The reigning religious beliefs in a community or country also play a role in the level of animal abuse. In the West, Judeo-Christian ideology frames humans as superior to all other creatures, thus facilitating animal exploitation and abuse (Flynn, 2001). Some communities also attribute lower statuses or values to a specific species, which justifies some of the abuse suffered by that species. For example, some Muslims view dogs as impure; however, Stilt (2009) explains that this attitude was based on a saying by the Prophet Muhammed (Peace be Upon Him) that feeding bowls should be cleaned thoroughly after a dog licks them, but only because 1400 years ago people probably did not have multiple utensils and separate bowls for humans and animals. She explains that people took this saying and attributed impurity to dogs' saliva.

Some researchers have also suggested a link between the status of social inequality and patriarchy in a community and the level of animal abuse. Feminist scholars attributed animal abuse to patriarchy since most abusers are male, and there is a link between animal abuse and

domestic violence. They argued that men use cruelty against their companion animals to control and intimidate their victims, both women and children (Adams, 1994, 1995; Arluke & Luke, 1997). Some researchers, like Ascione and Shapiro (2009), saw a link between feminist studies and human-animal studies because they both explore social justice issues and help eliminate discrimination towards oppressed groups.

Other studies have looked at the link between neighborhood characteristics and levels of animal abuse. Levinthal (2010) tested the impact of the structural characteristics of a neighborhood on animal crime. The study used data from the Pennsylvania Society for the Prevention of Cruelty to Animals and found that neighborhood crime rates and poverty levels predicted animal abuse but could not explain the reasons behind this link. It was also found that animal abuse more often occurs in low-income communities (Flynn, 2012; Hartman et al., 2019; Munro, 1999). Burchfield (2016) wanted to test if the theory of social disorganization can be generalized to include animal crime; this theory proposes that a disadvantaged community structure can weaken social ties, social control, and the consensus against crime. She found that neighborhoods with higher rates of animal crime are characterized by high human crime rates, specifically more violent and property crimes, socioeconomic hardship, and African American residents. For social disorganization, the study found a small effect of neighborhood hardship on animal fighting.

Agnew (1998) built on limited previous research on animal abuse and on leading crime theories to come up with the only complete theory on animal abuse combining both psychological and social elements. Agnew's integrated theory is based on elements from the social learning theory (Bandura, 1977), the techniques of neutralization (Sykes & Matza, 1957), and moral disengagement (Bandura, 1990). Agnew (1998) theorized that there are three factors

that directly affect the level of animal abuse: The first factor is ignorance of the consequences that our actions have on the animals: this includes ignorance about how our actions lead to the treatment of animals like environmental pollution, factory farming, buying products tested on animals, or enjoying entertainment activities like the circus and zoos where animals are badly treated. It also includes the ignorance of the pain and suffering that animals experience as a result of our behavior, such as the belief that animals suffer less, or have high pain tolerance, or do not feel pain as humans do.

The second factor is that animal treatment characterized as abuse can be justified. Such beliefs, rooted in western traditions, include low moral considerations for animals and the belief that humans are superior to animals. This factor includes the belief that animals deserve the abuse because they possess traits that humans do not like, enabling people to justify their abuse as retaliation. Another element is that the abuse serves a higher end, like the protection of human health, jobs, and life. The third factor concerns the belief that the perceived benefit gained from the abuse outweighs the costs.

These three factors vary between individuals and can be attributed to:

- individual traits such as low self-control, impulsivity, empathy, which could be partly or entirely dependent on socialization and modeling behavior,
- socialization through family, schools, peers, media, religious institutions,
- the role of companion animals since people form close bonds with their companion animals, they become more aware of their personalities, cognitive capabilities, and susceptibility to pain and suffering, which in turn has a reducing effect on animal abuse,
- strain or stress caused by animals like financial stress,



- level of social control (attachment to others and seeking approval) as this affects the level of socially unacceptable abuse,
- nature of the animal, including its similarity to humans, cuteness, the historical and cultural importance of the species,
- social position such as gender, race, age, education, income, region (for example, men are more involved in animal abuse due to the difference in socialization.)

As inclusive as Agnew's theory is, it only focuses on individual factors. However, he argues that social, cultural, religious, philosophical, and economic factors do affect the level of abuse. Mowen and Boman IV (2019) tested Agnew's theory and found that feelings of inferiority, impulsivity, early life offending, race/ethnicity, alcohol use, self-esteem, and moral beliefs were all significantly associated with animal abuse while anxiety and future goals were not.

Since Agnew's theory is the only comprehensive theory on animal abuse to date, the current study will use it as a general guide to explore how multiple factors can affect animal abuse in the Egyptian context, such as attitudes, family influence, religion, laws, peers, and other factors; building on the multifaceted approach adopted by this theory.

### **Prevention and Protective Factors**

Some studies have looked at factors that may increase positive attitudes towards animals and thus protect against animal abuse. Pet ownership and positive interaction or exposure to animals have been shown to contribute to positive attitudes towards their treatment. Pet ownership and the ability to spend time interacting and watching the pet were shown to increase understanding of animals' emotions and sentience. Menor-Campos et al. (2018) explored the belief in animal mind (the belief in cognitive and emotional capacities of animals and their

sentience) among Spanish school children and found an association between pet ownership and belief in animal mind. Morris et al. (2012) found that pet owners were better able to identify a variety of emotions in their pets and explained that this could translate into higher levels of animal rights support. Modeling was also highlighted as a protective factor against animal abuse. Adolescents who volunteered in educational programs about wildlife said that watching their parents, program coordinators, and peers positively interact with animals caused them to have positive attitudes of their own (Kidd & Kidd, 1997). Arluke (2003) interviewed 30 children, aged between 11 and 16, and their parents, following their participation in an exploratory veterinary program for children at Tufts University. He found that children characterized as “super-nurturers” had witnessed their parents model this behavior of nurturance and encourage their love and feelings of responsibility for animals. Also, the one to two weeks of positive interaction with animals and caring for them in the veterinary program had a positive impact on the children’s attitudes and inclination to help animals. Engaging children with literature depicting human and animal characters, and the follow-up discussions, has also been shown to work as a protective factor against animal abuse (Arluke, 2003; Beierl, 2008)

Many researchers voiced the need for prevention efforts to stop the problem of animal abuse either for the sake of the animals themselves or for the link between animal abuse and human violence. Ascione and Shapiro (2009), for example, called for the application of the three levels of prevention: primary, secondary, and tertiary introduced by Caplan (1961). Primary prevention, which focuses on stopping animal abuse before it happens, can be accomplished through humane education, which is a “form of character education that uses animal-related stories, lessons, and activities to foster respect, kindness, and responsibility in children's relationships with both animals and people” (Faver, 2010, p.365). Humane education started in

the United States with one classroom presentation by the local humane society then moved to an entire semester-long course. Some researchers have developed humane education curriculums and framed them in terms of more general topics like character development (Thompson, 2001) and social justice and environmental awareness (Center for Compassionate Living, 1999). Some humane education programs focus on topics related to animal welfare (companion, farm, and wildlife animals) and use animals to teach social and emotional skills. For example, topics like environment conservation, bullying, understanding children from different backgrounds, climate change, and others are taught in the case of the Circle of Compassion Program (Samuels, Meers & Normando, 2016) while self-awareness, perspective-taking, appreciating diversity, and empathy are the focus of The Mutt-i-grees Curriculum designed by Yale University professors (Jones et al., 2017), and the Healing Species program focuses on primary violence prevention and intervention (Sprinkle, 2008).

Although there are different types of programs depending on the topic, length of instruction, and audience, humane education evaluation still has a long way to go to prove the effectiveness of these interventions (Faver, 2010). A few studies have evaluated humane education programs and found that children involved showed an increase in empathy, prosocial behavior, positive attitudes towards animals, a reduction in attitudes supporting aggression, and a decrease in bullying incidents (Faver, 2010; Jones et al., 2017; Samuels, Meers & Normando, 2016; Sprinkle, 2008).

Secondary prevention efforts target at-risk populations, including people who are most likely to engage in animal abuse, people who have already committed incidents of animal abuse but have not committed any violent acts against humans, and people who have committed one incident of animal abuse, especially young children (Ascione & Shapiro, 2009). They add that

the younger the identified at-risk population, the more effective the prevention program. They also add that the strong evidence of co-occurrence between animal abuse and other conduct problems supports the need for early identification of at-risk populations and design proper interventions.

Some examples of secondary intervention programs include Forget-me-not Farm (Rathman, 1999), a program established in the early nineties, where children from violent homes visited a farm inhabited by a number of animals and are introduced to animal care and gardening, where they were taught about nonviolence and compassion in a nonthreatening environment. Another example is the People and Animals Learning program (DeGrave, 1999), also established in the early nineties, where at-risk youth were paired with undesirable dogs rescued by shelters and then, under the supervision of a professional dog trainer, taught the dogs basic obedience and provided care for them and other injured wildlife animals. The goal of this three-week program was to instill a sense of responsibility and accountability in the youth and teach them to respect other people and animals. As with the primary prevention programs, Fine (2010) argued that there is only limited evidence of the effectiveness of these programs. Lastly, tertiary prevention consists of interventions for convicted animal abusers. An example of tertiary prevention programs in the United States was The AniCare Model (Jory & Randour, 1999). This was the first published therapy model that targets animal abuse offenders either under or over the age of 17; they used a mix of cognitive-behavioral therapy and attachment and psychodynamic theories to foster empathy in offenders and respect for both people and animals.

Others have proposed implementing prevention efforts that directly target the risk factors for animal abuse, such as biological factors, micro-, and macro-environmental factors, as well as the development of aggression caused by cognitive structures like normative beliefs and

aggressive scripts (Gullone, 2014). Researchers proposed future steps in research and intervention, including conducting prospective longitudinal research to better explore the link between animal abuse committed during childhood and adulthood and later interpersonal violence (Chan et al., 2019; Felthous & Kellert, 1986), as well as conducting more qualitative in-depth interviews with children who have committed acts of animal abuse along with their parents (Levitt et al., 2016), and more research on bestiality and animal sexual abuse.

Chan et al. (2019) proposed identifying early indicators of animal abuse in children to prevent later interpersonal violence and applying prevention education focusing on empathy (a protective factor), prosocial behavior, and the humane treatment of animals in both schools and at home. It has been shown that teaching prosocial behavior like victim empathy and anger management is effective in preventing deviant behavior like animal abuse (Chan & Wong, 2015), and teaching humane treatment of animals reduces animal abuse (Fielding & Plumridge, 2010). And lastly, Chan et al. (2019) suggested creating a cross-reporting system, also supported by DeGue and DiLillo (2009), that alerts officials and prevents acts of animal abuse. An example of this proposed system is asking animal welfare agencies that discover animal abuse to report the abuse to child and family social workers who can then intervene.

### **Animals in Egypt**

In Egypt, the animal welfare situation is alarming; overall, Egypt scored an “F” on the Animal Protection Index 2020, which ranks countries on their animal welfare legislation between A as the highest score and G as the lowest (World Animal Protection Organization, 2020). Stilt (2018) explained that animal protection efforts in Egypt were relatively new following the increased interest in animal welfare in the late 1990s and early 2000s. The main champions of this movement included the Society for the Protection of Animal Rights in Egypt (SPARE),

established in 2001, the Egyptian Society of Animal Friends (ESAF), established in 2002, and the Egyptian Society for Mercy to Animals (ESMA) established in 2004. However, some efforts date back to the early twentieth century with the establishment of the Brooke Hospital for Animals in 1934 by a British woman to look after the horses left behind after the end of World War II.

As of 2014, Egypt became one of only three countries outside Europe that has animal protection sections in their constitution, along with India and Brazil. The other European countries that have such clauses are Austria, Germany, Luxemburg, Switzerland, Slovenia, and the rest of the European Union (Stilt, 2018). Kindness to animals written in Arabic “Al Rifq Bil Hayawan” was introduced in article 45 of the 2014 constitution, the second constitution after the 2011 revolution. Article 45 states, “The State shall protect its seas, shores, lakes, waterways, and natural protectorates; Trespassing, polluting, or misusing any of them is prohibited. Every citizen is guaranteed the right of enjoying them. The State shall protect and develop the green space in the urban areas; preserve plant, animal and fish resources and protect those under the threat of extinction or danger; guarantee humane treatment of animals, all according to the law.” (Egypt Const. amend. 2014, art. 45)

Even though animal protection was recently added to the constitution, animal protection laws are still very weak, with only the agricultural law of 1966 and the Egyptian penal code regulating animal welfare. Animals are not recognized as sentient by the law, there is little legislation for animal welfare with no governing responsibility assigned to a specific ministry, societal norms do not consider animal welfare to be worthy of consideration, and penalties are very rare and not serious (World Animal Protection Organization, 2020).

On their website, SPARE Lives Egypt listed the most common animal abuse forms observed in Egypt; They specified abuse faced by pets, stray animals, livestock, equine and animals in captivity (Society for the Protection of Animal Rights in Egypt, n.d.):

- Pets in Egypt suffer abandonment by families who either are ignorant of animal behavior or grow bored of the animal and thus decide to throw them in the street. Dog ownership in Egypt usually takes the form of owning a purebred just for show, ownership of aggressive dogs without proper training or socialization, and keeping dogs on roofs and balconies in cages. SPARE also highlights the spread of backyard breeders in Egypt who usually abuse stolen purebred animals for years to produce many litters for a quick profit.
- There are around 500 million stray animals in Egypt (75% of them are dogs) who face dire situations in Egypt. Dogs specifically suffer the most with the most common forms of abuse include poisoning and shooting by the government animal control, beating with wood canes (shooma), putting glass in food, cutting tails and ears, drowning puppies, using rope collars that cut into the skin (sometimes puppies are tied with rope and remain many years with the rope cutting into their skin and suffocating them). Cats also face shooting, poisoning, drowning (specifically by young children), and suffocating.
- Livestock also faces dire situations while being transported to the slaughterhouse and kept there and slaughtered. Instances have been recorded with animals being cut more than once, left to bleed out, hit with sticks and metal rods in their testicles, hit and poked in the eye, and allowing small children to slaughter them. In 2006, recorded footage by Australian and English investigators of Australian sheep being abused in Egypt's El Bassatine abattoir before Eid-Al Adha, led to the suspension of the live trade agreement

between Egypt and Australia by then Australia's minister of Agriculture Peter McGauran (Animals Australia, 2019).

- A large segment of the population relies heavily on equine animals for labor; Donkeys and horses in Egypt are overworked in harsh conditions, carry weighty loads, are beaten and physically abused, and their wounds and illnesses are left untreated.
- Animals in zoos and circuses are malnourished, severely beaten to submission, abused to perform acts, and maintained by cruel and untrained employees.

Another New York Times (Walsh, 2019) story portrayed the horrendous conditions that animals face in tourist areas like the Pyramids of Giza and the Valley of the Kings in Luxor. Horses were emaciated, whipped, overworked with heavy loads beyond their capacity and with open wounds. PETA (People for the Ethical Treatment of Animals) called for a boycott of Egyptian tourism. The story also highlighted the abuse that takes place at Birqash camel market, where abused camels with blood-stained faces can be seen in broad daylight.

In an attempt to correct many misconceptions about animals in Islam and encourage the better treatment of animals in Egypt, a majority Muslim country, the three main animal welfare NGOs in Egypt ESMA, SPARE and ESAF worked together to produce a booklet on animal welfare in Islam. The booklet titled *Animal Welfare in Islamic Law* was written by Kristen Stilt, a Professor of Law at Harvard Law School, with an introduction written by a professor at Al Azhar University and published in 2009 (Stilt, 2018). Through her studies of Islamic law, Stilt (2009) discussed how she discovered that Islamic law promotes kindness to all animals, which is something neglected or forgotten by the Muslim population in Egypt who abuse animals or misuse them in harsh working conditions.



As is the case for many other societal problems in Egypt, research on animal abuse within the Egyptian context is non-existent. Since this problem has many ramifications within society, especially with its links to interpersonal violence, a closer look at this problem is needed. Many of the risk factors listed above are present in modern-day Egypt. High levels of childhood adversity and intimate partner violence (IPV) were recorded in the past years. According to the Egyptian Demographic and Health Survey (EDHS), representative of the Egyptian population, the rate of Severe Physical Violence (SVP) experienced by children in Egypt was 40.3% in 2005 and increased to 43% in 2014. SVP includes extreme forms of physical violence like slapping on the face, beating, burning with a spoon, and repeated hitting without stopping (Anwar Abdel-Fatah, 2021). Mansour et al. (2010) examined the impact of child abuse on adult psychological wellbeing in a sample of students from Zagazig University. The study found that 44% of students reported suffering from physical neglect during childhood, 19% reported suffering from emotional neglect, 13% reported suffering from sexual abuse, 8.9% reported suffering from emotional abuse, and 6% reported suffering from physical abuse. It was found that the experience of abuse in childhood caused the students to experience low self-esteem, self-harm, dissociation, and aggression as adults.

Another study conducted with students from Sohag university found that 29.8% of students had experienced some form of sexual abuse during childhood; women experienced it at a rate of 37.8% while men at a lower rate of 21.2% (Aboul-Hagag & Hamed, 2012). As for intimate partner violence (IPV) in Egypt, data from the 2005 and 2014 Egyptian Demographic and Health Survey combined showed that 29.4% of ever-married women experienced some form of physical violence perpetrated by their husbands, while 17.8% reported suffering from emotional abuse (Yaya et al., 2019). It was also found that there is a link between IPV and child

abuse in Egypt, as mothers who reported being subjected to IPV were more likely to commit abusive acts towards their children (Antai et al., 2016).

Another risk factor that exists in Egypt is the prevalence of bullying behavior in schools. Galal et al. (2019) studied a sample of preparatory and secondary students in two mixed public schools in rural Egypt and found that 77.8% of students experienced some form of bullying behavior (9.5% were bullies only, 10.5% were victims only, and 57.8% were both bullies and victims of bullying). The study also found that 69.4% of bully-victims have experienced some form of physical and/or verbal abuse by their family members, and 64.1% have reported experiencing punishment at their school. A significant correlation between being a bully-victim and witnessing violence in the streets, such as physical violence, insults, and use of weapons, was detected as well. Conduct problems have also been explored among Egyptians. Abd Elhamid et al. (2008) studied the prevalence of emotional and behavioral problems among a sample of 1186 Egyptian school children aged between 6 and 12, including conduct problems. They found that 27.7% of the sampled children exhibited symptoms of conduct problems as reported by their teachers; This rate fell to 25.3% of children when reported by their parents. However, the researchers found that a conduct disorder diagnosis percentage was much lower when they combined parent and teacher reports using a multi-informant algorithm. The researchers compared these results to a similar sample of British children and found that the psychiatric diagnosis of conduct problems and other behavioral problems were similar to those of Britain. However, the prevalence of the symptoms was much higher in Egypt than in Britain but similar to other Islamic countries in transition, such as Pakistan. A systematic review of 24 studies conducted in the Middle East between 1995 and 2014, including Egypt, showed that the prevalence of conduct disorder in the studied Middle Eastern countries was much higher than the

global prevalence. The authors called for the implementation of prevention and intervention efforts for children and adolescents in these countries (Salmanian et al., 2017). The high levels of animal abuse, as reported by animal protection organizations, combined with the abundance of risk factors in Egypt inspired this exploratory study to understand the roots of this problem and to find appropriate and culture-specific remedies.

### **Aim of the Study**

The aim of this study was to assess the following questions:

1. What are the attitudes of university students and graduates living in Egypt regarding the treatment of animals and their behaviors regarding animal abuse?
2. Is there a correlation between being exposed to animal abuse or witnessing it early in life and being involved in any kind of abusive acts?
3. What are the reasons that some participants do not abuse animals when they live in a context and culture where animal abuse is common? What protective factors do these youths possess that led to their humane attitudes and behaviors regarding the treatment of animals?

### **Methods**

The purpose of this study was to explore the attitudes and behaviors of university students and graduates concerning the treatment of animals in society and assess the protective factors against animal abuse among identified positive deviants. With Covid-19 restrictions, university students and graduates were a relatively easy group to access, because they could be reached through social media platforms. Positive deviants are participants who grew up surrounded by the same societal views of animals and have the same resources as the rest of the participants but show uncommon positive attitudes and behavior towards animals in the present

moment. A mixed-methods approach, using quantitative and qualitative data, was applied to answer the questions of this study.

### **Participants**

A convenience sample of 99 Egyptian young adults, either students or graduates of Egyptian universities between 18 and 40, completed the online survey. There were 36 males and 63 females, primarily from Cairo and Giza, with only 20% coming from other areas of Egypt. Seventy-nine percent attended public universities, while 29% attended private universities (see Table 1).

A question at the end of the survey asked the respondents if they were willing to participate in an online interview to further explore the topic of animal abuse in Egypt. A purposive sample from the survey respondents was then identified based on their scores on “The Belief About Use of Animals in Society” scale (Phillips & McCulloch, 2005). This scale presented the participants with 16 statements covering different uses of animals in society with a total possible score of 112. Eight interviewees were selected from the 53 survey respondents who had agreed to participate in an interview. Since the data from the interviews needed to reflect the positive attitudes and protective factors among the respondents, the pool of available interviewees was reduced to those who scored above a certain cut-off point (75) on the above-mentioned scale. Data saturation from the women interviews was reached after 5 interviewees, while only three male interviewees above the score of 75 showed up for the interview, limiting the total number to eight. The first five interviewees with the highest scores on the “Belief About the Use of Animals in Society” scale were all women aged between 23 and 30 years old who attended a public university. Interviewee one from Qalyubiyi scored 102 points out of possible 112 scores; interviewee two from Cairo scored 99 points; interviewee three from Beheira scored

93 points; interviewee four from Giza scored 103 points, and interviewee five from Cairo scored 96 points. The next three interviewees were men, and all attended a public university.

Interviewee six from Giza was above the age of 30 and scored 88 points; interviewee seven from Qalyubia and aged 21 years old scored 86 points; lastly, interviewee eight, from Qalyubia as well and aged between 23 and 25 years old, scored 78 points.

**Table 1**

*Sociodemographic Characteristics of the Online Survey Respondents*

Characteristic	<i>n</i>	%
Gender		
Male	36	36.6
Female	63	63.4
Governorates		
Cairo	45	45.5
Giza	34	34.3
Sohag	4	4
Qalyubia	3	3
Alexandria	2	2
Assiut	2	2
Helwan	2	2
Gharbeya	2	2
Others <sup>a</sup>	5	5
Ages		
18	5	5
19 to 20	26	26.3
21 – 22	27	27.3
23 -25	20	20.2
26 – 30	11	11.1
Above 30	10	10.1
University		
Public	70	70.7
Private	29	29.3

*Note.* *N* = 99. The respondents filled 100% of the survey (incomplete surveys were discarded).

<sup>a</sup> Only one respondent reported originating for each of the following governorates: Beheira, Beni Suef, Luxor, and Sharkiya, and one did not specify the governorate.

## **Tools**

### ***Use of Animals in Society***

The “Belief About the Use of Animals in Society” scale (Appendix C), developed by Phillips and McCulloch (2005), was used to measure the attitudes of the participants towards the treatment of animals in Egypt. The answers to the questions were on a scale from one to seven, where one represents “very strongly disagree” and seven represents “very strongly agree.” Some questions were worded positively towards animal welfare, and some were worded negatively. Permission to translate to Arabic and use this tool in this study was obtained from Professor Clive Phillips at the University of Queensland. The questionnaire was translated to Arabic (Appendix E) and then back translated to English to help ensure the accuracy of the translation. To test reliability, Cronbach’s alpha was calculated at .699, indicating a moderately acceptable internal consistency of the entire measure.

### ***Experience with Animals***

The second segment of the survey (Appendix C), used to assess the experiences of the respondents with animals concerning their maltreatment or abuse, was adapted from a survey used by Henry (2004a), Henry (2004b), and Henry and Sanders (2007) to study animal abuse within samples from university students and the P.E.T. scale (Baldry, 2004) used to measure the emotional and physical maltreatment of animals by adolescents. Henry's (2004a) and Henry's (2004 b) survey was a modified version from another survey by Flynn (1999a, 1999b), which was a modification of Miller and Knutson’s (1997) questionnaire adapted from the Boat Inventory on Animal related Experience (Boat, 1999). Henry (2004a), Henry (2004b), and Henry and Sanders (2007) used three slightly different versions. For the purposes of this study, the

versions were combined and used as one survey in combination with questions inspired from the P.E.T. scale by Baldry (2004) to investigate experiences with animals.

This part of the survey investigated two main areas: witnessing animal abuse or killing and committing acts of abuse or killing. Four questions were asked to investigate the occurrence of witnessing animal abuse, including witnessing religious slaughter, witnessing non-food-related killing, witnessing torture, or ever being controlled by harming an animal. If any of these questions were answered with a “yes,” then the respondent has witnessed an act of animal abuse. When any of these questions were answered “yes,” another series of questions were asked about the earliest age of witnessing the abusive act, the perpetrator, and the degree to which respondent was bothered by it. Four questions were asked to investigate whether the respondent had ever perpetrated an abusive act. The first two questions in this section listed each type of act that is considered abuse. The acts were adapted from the P.E.T. scale by Baldry (2004). One question investigated any acts of abuse at home, and the second investigated any acts of abuse in the street. The third question asked if the respondent had committed any acts of abuse or killing for the sole purpose of teasing or causing intentional pain. For each of these three questions, the respondent has perpetrated an act of animal abuse if they selected any of the listed acts (and did not select “no”).

The fourth question in this section asked if the respondent has committed any acts of intentional killing and listed several acts to be selected from. Four of these acts (killing an animal because it was hurt, killing for food, killing for Eid-Al Adha festivities, killing to control a rodent or pest infestation) were not considered animal abuse. If the respondent selected any of these acts or selected “no” to the question, they were not considered a perpetrator of an abusive act. Another three acts of abuse were listed (killing for sport, killing for fun or entertainment, or killing for another non-listed reason), then the respondent has perpetrated an act of animal abuse.

Following each of these four questions, if the respondent was a perpetrator of an act of animal abuse, a series of questions asked about the earliest age of perpetrating the abusive act, the number of incidents per question, the type of animal abused, the type of the abusive act and if the perpetrator was alone while engaging in the act.

### ***Semi-structured Interview***

Ten semi-structured interview questions (Appendix D) were drafted for the purposes of this study to further explore what protective factors might distinguish those who have high positive attitudes towards the use of animals in society. These questions were inspired by Agnew's (1998) social psychological model of animal abuse. This model lists several factors that may explain animal abuse, including the social position of the person (gender, age), their levels of empathy, their socialization, their awareness of the consequences of abusive acts, their beliefs that abuse is wrong, their social control, the levels of stress caused by humans or animals, the nature of the animal in question. Questions included exploring attitudes related to animal-related practices currently present in Egypt, reasons for not engaging in abusive acts towards animals, experience of parents and peers while interacting with animals, attitudes toward animal sentience, preference, or aversion towards certain types of animals and awareness of animal protection laws and sanctions in Egypt.

### **Procedures**

Approval from the Institutional Review Board (IRB) at the American University in Cairo to survey and interview human subjects was obtained and consent forms were obtained prior to the survey and interview (Appendices A and B). Following the IRB approval, another approval of the data collection tools was obtained from the Central Agency for Public Mobilization and Statistics (CAPMAS).



### *Survey*

The survey was piloted twice among individuals with similar characteristics as the target audience, and adjustments to the survey questions were made according to the received feedback. An online version of the survey was created on Qualtrics, and the link to the survey was distributed on social media platforms, mainly Facebook. Groups, local non-governmental organizations (NGOs) and individuals, who have access to university students and graduates between the ages of 18 and 40 and who have attended or are currently attending an Egyptian university were contacted and asked to distribute the survey on their platforms. As a result, 99 respondents filled 100% of the survey while other non-complete responses were discarded. At the end of the survey, respondents were asked if they would like to be contacted for an online interview to further explore the topic of animal abuse in Egypt.

### *Interview*

A total of 53 respondents answered “Yes” to being contacted for an interview, but only 45 provided their contact information. The scores of the respondents on the “The Belief About Use of Animals in Society” scale (Phillips & McCulloch, 2005) was calculated and organized from highest to lowest. The intended target was to interview the top five scorers among women and the top five scorers among men. The top six scorers among women, who provided their contact information, were all contacted. Only five women responded and were interviewed (ranked<sup>1</sup> 3<sup>rd</sup>, 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, and 10<sup>th</sup> among women and all together). The top seven male scorers, who provided their contact information, were contacted for an interview, and only three men responded and were interviewed (ranked 2<sup>nd</sup>, 3<sup>rd</sup>, and 7<sup>th</sup> highest scorers among men and 20<sup>th</sup>, 26<sup>th</sup>, and 41<sup>st</sup> all together).

---

<sup>1</sup> The rankings were based on all the survey respondents not just those who provided their contact information.

The interviews were conducted in colloquial Arabic via Zoom application and were voice recorded. A local professional transcribed the interviews in Arabic. Each interview was coded in Arabic (first level coding) using verbatim codes from the text. This coding was inductive to allow the data from interviews to determine the themes. After this initial step, all verbatim codes from all eight interviews were reviewed and clustered together under common subthemes, which were then translated to English (second level coding). The following step consisted of reviewing all the themes and organizing them to make sense of the data and answer the research question concerning identified protective factors among the interviewees. The last step consisted of creating major themes from all the identified subthemes resulting in eight themes and 23 subthemes (see Figure two).

## **Results**

### **Online Survey Analysis**

Data from the online survey was analyzed using IBM SPSS Statistics version 25.

#### ***Attitudes toward Treatment of Animals***

The questionnaire “The Belief About the Use of Animals in Society” (Phillips & McCulloch, 2005) was used to measure attitudes toward animals' treatment. Table two showcases the mean score and standard deviation for each of the 16 statements of the measure. The lowest two means were about vegetarian diets (Statement 10 at 3.4 and statement 15 at 3.2), while the highest two means correspond to statement three at 6.1 and statement four at 6.5). After reverse scoring negatively formulated statements, the total score for each one was calculated for each respondent by adding up the adjusted 16 variables of the measure with a total possible score of 112 ( $M = 77.4$ ,  $SD = 11.9$ ). Scores ranged from a low of 52 to a high of 106. A total of 55 respondents (55.6%) scored at or below the mean.

An independent samples t-test was conducted to see if total attitudes differed between men and women. The result showed a significant difference in total attitudes towards the use of animals in society between men and women at  $p < .05$ ,  $t(97) = 3.798$ ,  $p = .019$ , 95% CI [4.25, 13.5].

**Table 2**

*Mean Scores and Standard Deviation for The Belief About the Use of Animals In Society Statements.*

Statement	<i>M</i>	<i>SD</i>
1. Transport of food animals, such as sheep or cattle, by road, involves little or no discomfort or cruelty	4.7	1.7
2. Many wild animals suffer considerably from stress and boredom, as a result of being kept in zoos	5.4	1.6
3. Keeping farm animals such as pigs and veal calves in small crates where they cannot even turn around is unacceptable	6.1	1.7
4. It is better to euthanize (kill by lethal injection) unwanted dogs than to keep them alive in shelters/kennels/refuges for the rest of their lives <sup>a</sup>	6.5	1.2
5. It is acceptable to catch fish just for sport	4.7	1.7
6. It is wrong to kill animals for food when vegetarian diets are available	3.4	1.8
7. Surgically removing a cat's claws to stop it from scratching the furniture is acceptable	5.1	1.9
8. It is acceptable to test cosmetics/shampoos on animals, so that they will not harm humans	5.4	1.8
9. Traps which injure the animal but don't immediately kill it are unacceptable	5.2	2.1
10. It is wrong to use animals (e.g. rats, mice) for scientific research	3.8	1.8
11. The hunting of deer and foxes for sport is cruel and unnecessary	5.7	1.7
12. The educational and entertainment value of zoos is far more important than any cruelty that may be involved in holding wild animals captive	4.4	2.1
13. The fact that intensively farmed pigs grow well and produce large litters of piglets shows that they are clearly not suffering <sup>b</sup>	4.7	1.6

Statement	<i>M</i>	<i>SD</i>
14. As long as adequate food, warmth and light are provided, there is nothing really cruel about battery hen farming	4.3	1.8
15. Human beings are natural meat-eaters, so we shouldn't feel guilty about killing animals for food	3.2	1.7
16. In scientific research, the advancement of knowledge comes first, even if animal suffering is involved in the process	4.7	1.8

<sup>a</sup> The words “euthanize/kill by injection” were changed to “poison/shoot” in the Arabic version to fit the Egyptian context. <sup>b</sup> The words “farmed pigs” were changed to “cattle” in the Arabic version to fit the Egyptian context.

### ***Pet Ownership***

A total of 36 respondents (36.6%) currently reported having a pet, 22 of which (22.2%) reported having very strong attachment with their pets, 11 respondents (11.1%) reported having a strong attachment, and only three respondents (3%) reported having a normal attachment. None of the respondents who reported having pets had low or no attachment to their pets. An independent samples t-test was conducted to see if there was a significant difference in the total attitudes towards animal use in society (Total Belief in animal use in society) between those who reported owning a pet ( $M = 80$ ,  $SD = 12.2$ ) and those who did not ( $M = 75.9$ ,  $SD = 11.7$ ), no significant difference was detected between the two groups at  $p > .05$ ,  $t(97) = 1.66$ ,  $p = 0.100$  (equal variance assumed). However, the mean of total attitudes for those reported owning a pet was slightly higher than those who reported no owning a pet.

### ***Exposure to Halal Slaughter***

Most of the respondents ( $n = 85$ , 85.9%) answered “yes” to the question “Have you ever seen an animal being slaughtered for food/during Eid-Al Adha?” A total of 13 respondents (13.1%) first saw the halal slaughter between the ages of two and five, 48 (48.5%) first saw it

between the ages of six and 12, 13 respondents (13.1%) first saw it between the ages of 13 and 18 and 11 (11.1%) first saw it above the age of 18. Only 14 respondents (14.1%) reported never seeing an animal being slaughtered. Respondents who answered “yes” to the question were divided into two groups: those who witnessed halal slaughter during childhood (ages between two and twelve); and those who witnessed halal slaughter during adolescence (age 13 and above). A t-test was conducted to see if the total attitudes towards the treatment of animals were different between the childhood group and the adolescent/adult group, but no significant difference was detected at  $p > .05$ ,  $t(83) = 1.656$ ,  $p = .167$ . However, when dividing the survey respondents into three groups (those who did not witness halal slaughter, those who witnessed halal slaughter between the ages of two and twelve, and those who witnessed halal slaughter at the age of 13 and above), a one-way ANOVA test showed a statistically significant difference in the mean of the total attitudes between the three groups at ( $F(2) = 4.177$ ,  $p = 0.18$ ). A Turkey post hoc test showed a statistical significance between those who did not witness animal slaughter and those who witnessed it at the age of 13 and above ( $p = .013$ ).

### ***Exposure to Animal Abuse***

Exposure to animal abuse was measured by three questions asking if the respondents have ever seen an animal being killed not for food purposes, an animal being tortured, or if someone has ever tried to control the respondent by hurting or threatening an animal. A total of 71 respondents (71.7%) answered yes to any of these three questions reporting exposure to some form of animal abuse. Table three illustrates the frequency of different aspects of exposure to animal abuse.

### **Table 3**

*Frequency And Distribution of Exposure to Animal Abuse Follow-Up Questions.*

Characteristics of abusive acts witnessed	Seeing animal killed (not for food)	Seeing animal tortured	Controlled by hurting an animal
	<i>n</i>	<i>n</i>	<i>n</i>
Age of 1 <sup>st</sup> exposure			
2 to 5	0	6	1
6 to 12	10	13	1
13 to 18	7	26	2
Above 18	14	19	4
Perpetrator			
Mother/father	2	1	1
Sibling	0	1	1
Friends/peers	4	9	4
Others	25	53	2
Feelings about act			
Not bothered	0	1	0
Somewhat bothered	6	6	4
Bothered a lot	25	57	4

*Note.* All “Others” perpetrators are explained in the text.

A total of 31 (31.3%) respondents who witnessed the killing of an animal other than for food were asked about the reason behind the killing. Thirteen respondents (42%) mentioned the reason “to get rid of the animal”. Respondents mentioned several motives for people to get rid of the animals (primarily dogs) from neighborhoods, like the assumption that the dog had rabies or was vicious, people and children being scared of dogs in the neighborhood, street dogs attacking people in the neighborhood, people getting bothered by the dogs, too many dogs in the street, government’s animal control killing all street dogs with guns or simply to eliminate them from the neighborhood. Six people (19.4%) mentioned that the killing they witnessed was made by mistake, either accidental killing or car accident. Five people (16.1%) mentioned people’s cruelty as the reason behind the killing. Two (6.5%) people mentioned hunting, sports, and entertainment as the reason behind the witnessed killings, and two more (6.5%) mentioned meat consumption. The remaining three respondents (9.7%) mentioned three different reasons behind the killing, like rat extermination, getting views on social media, or not actually knowing the reason behind the killing. A total of 25 respondents (80.6%) out of the 31 who reported

witnessing an animal being killed other than for food identified the perpetrators as “others”. They were then asked to identify the “other perpetrators” and 21 respondents answered. The other perpetrators listed were strangers in the street (mentioned by 11 respondents), neighbors (mentioned by six respondents), and animal control (mentioned by two respondents). One respondent answered with “A while back, animal control cars used to pass by in the morning, kill all the dogs with firearms and leave them dead in the street.” People on social media were mentioned by two more respondents as the perpetrators.

A total of 64 (64.6%) respondents reported witnessing an animal being tortured, 55 (86%) of which reported that the witnessed perpetrators were others than their family, friends, and peers. Only 45 respondents from those 53 reported the other perpetrators. Strangers in the street torturing animals or hitting and poisoning stray cats and dogs was mentioned by 20 respondents; 13 reported seeing children torturing animals, whether stranger children in the street or neighbor’s children; Eight reported seeing working-class strangers torturing or hitting animals in the street (six of which are street vendors pushing horse-drawn carriages for example severely hitting the horse). Seven respondents reported seeing animal torture on television or on social media platforms especially through videos on Facebook.

Only eight respondents (8.1%) reported falling victim to someone trying to control them by hurting or threatening animals, 4 of which were by friends or peers. One of the two respondents who reported “others” as perpetrators explained that neighbors in her building threatened to poison a stray dog who had just given birth in the building when she tried to protect the dog and care for her; the dog was eventually rescued.

### ***Committing Acts of Animal Abuse***

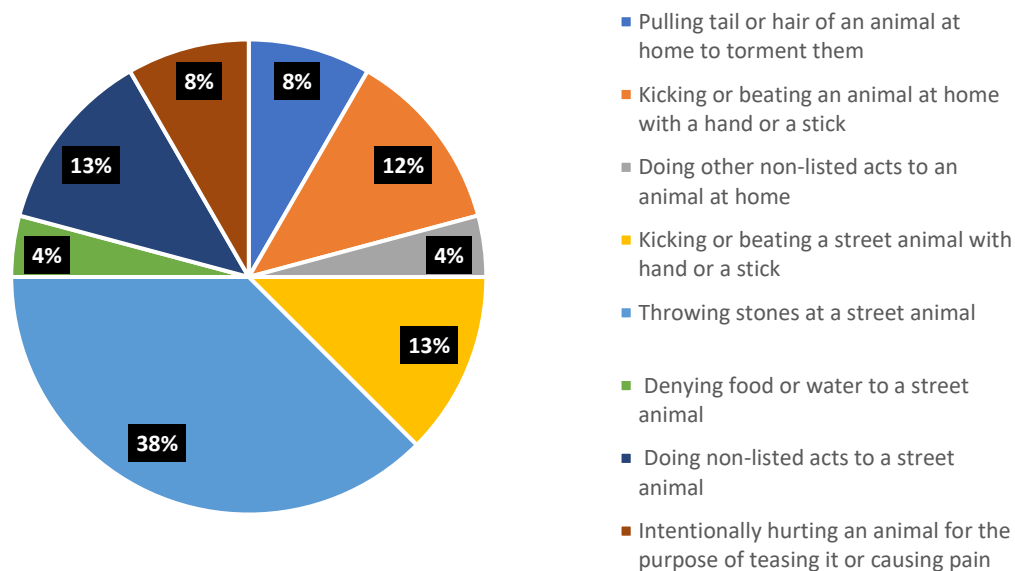
A total of 24 respondents (24.2%) reported committing at least one act of animal abuse (12 men or 33.3% of all male respondents and 12 women or 19% of all female respondents). A

total of 87% were from Greater Cairo (Cairo and Giza), 75% of them went to a public university, and the rest went to a private university. Figure 1 shows the types and frequencies of abusive acts among those who reported committing some form of animal abuse/cruelty.

The most frequent form of abuse was throwing stones at a street animal, which was reported by nine respondents out of the 24 (37.5%). The second two most common forms of abuse are kicking or beating a street animal using hands or a stick which was reported by three out of 24 respondents (12.5%) and kicking or beating an animal at home using hands or a stick also reported by three respondents (12.5%). Table four shows the frequencies and distribution of answers to follow-up questions on animal abuse.

**Figure 1**

*Distribution Of Abusive Acts Among Respondents Reporting Committing Some Form of Animal Abuse.*



**Table 4**

*Frequency And Distribution of Animal Abuse Follow-Up Questions.*



Characteristics of abusive acts	Animal at home	Animal in the street	To tease or cause pain to an animal
	<i>n</i>	<i>n</i>	<i>n</i>
Age of first engagement			
2 to 5	1	0	0
6 to 12	1	9	0
13 to 18	1	4	2
Above 18	3	3	0
Number of times			
1 time	1	3	1
Twice	2	7	0
3 to 5 times	1	5	1
6 or more times	2	1	0
Targeted animals			
Dogs	4	10	0
Cats	2	4	1
Small animals (ex. mice)	0	3	1
Large animals (ex. cattle)	0	2	0
Other	0	0	0
Company			
Alone	3	4	1
With Mother/father	2	0	0
With siblings	0	2	0
With friends/peers	1	8	1
With others	0	2 <sup>a</sup>	0

<sup>a</sup>One respondent did not specify the other and the second mentioned being alone, with family or friends.

When asked, “have you done any of the following acts to an animal in the street” five respondents selected doing a non-listed act. Two of the five respondents mentioned that they fed stray cats and dogs and thus were not included with those who reported committing some form of animal abuse. From the remaining three, two refused to say what the act was by answering “no” to “please specify” while the remaining respondent wrote that she threw water at a cat to prevent it from getting close to her. When people reported doing one of the mentioned acts in the above-mentioned question, they were asked to list the reason. Out of the 16 respondents who reported doing some form of animal abuse to a street animal, two did not specify the reason. Out

of the remaining 14 respondents, ten reported that it was out of fear that they did the abusive act (42% of all those who reported committing acts of abuse). The fear was either general fear or fear of getting bitten by a dog, fear of a dog barking in self-defense, fear of cats getting too close. Two mentioned “being unaware” as the reason, and only one mentioned that it was just to play. Out of all ten respondents who reported committing acts of abuse accompanied by their friends and/or peers, nine were below the age of 18 (five were between the ages 6 and 12, and 4 were between the ages of 13 and 18). Survey takers were also asked a question about acts that are not considered abusive, like killing for food or killing to protect someone. A total of 25 respondents selected that they did kill intentionally to control a rodent or an insect infestation. Another six respondents reported that they slaughtered an animal during Eid-Al Adha as a religious ritual. Five reported killing an animal for food, and two reported killing an animal for self-protection.

To see if there was an association between gender and the number of times abuse was committed, a Chi-square test was conducted, and the results showed no significant association between the two variables at  $X^2(3, N = 24) = 2.819, p = 0.420$ . Another Chi-square test was used to investigate if there is a significant association between the age of first exposure to some form of animal abuse and engaging in one. The test showed that the association between age of first exposure and committing an act of abuse is statistically significant at  $p < .05, X^2(3, N = 71) = 10.11, p = .018$ . Respondents who reported first being exposed to animal abuse between the ages of six and twelve committed acts of abuse more frequently than expected, while those who reported being first exposed to abuse above the age of 12 did not commit acts of abuse as frequently as expected. A similar Chi-square test was used to investigate if there is a significant association between the age of first exposure to Halal slaughter and committing acts of animal abuse. There was no significant correlation detected between the two variables at 95% confidence level,  $X^2(3, N = 85) = .591, p = .898$ . Finally, no significant correlation was found

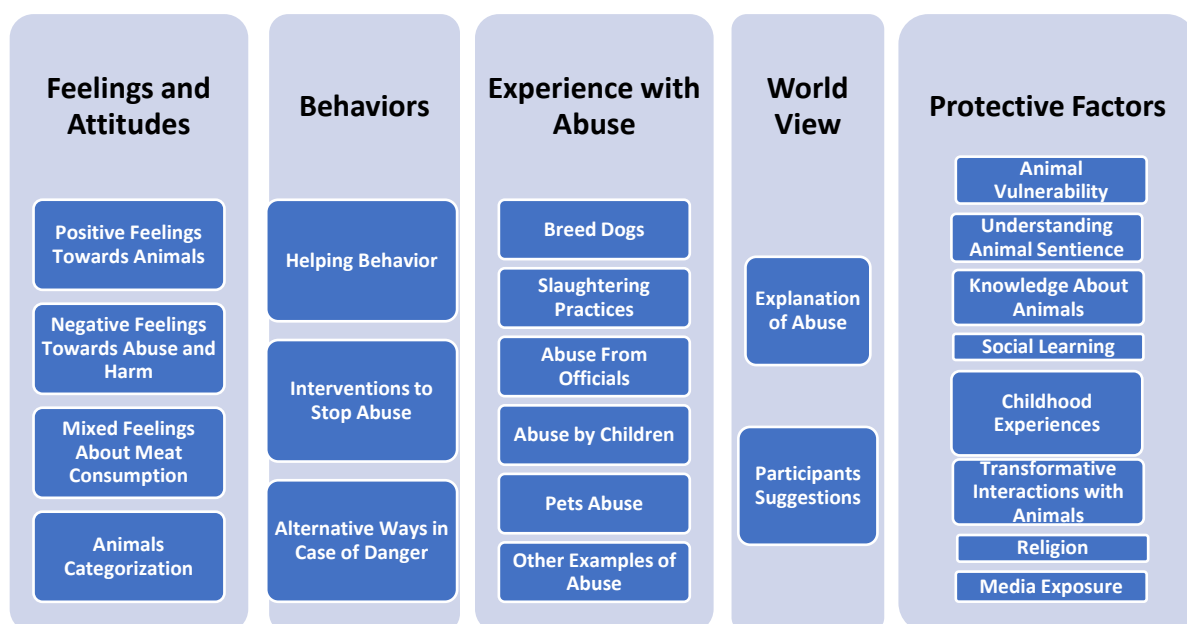
between exposure to animal abuse in general and committing an act of abuse at  $p < .05$ ,  $X^2(1, N = 99) = .012$ ,  $p = .912$ .

### Semi-structured Interviews

Eight semi-structured interviews were conducted with selected survey respondents who scored above 75 on the attitudes scale (five women and three men). The cut-off score was selected at 75 because the lowest score of an interviewed women was 93 out of 112, and since men scored lower than women in general, going below 75 to interview more men would have put them at a distance from the interviewed women. The interviews were transcribed and coded, then themes and sub-themes were identified. To analyze the eight conducted semi-structured interviews, a thematic analysis method (Braun & Clarke, 2006) was used. Five main themes emerged: feelings and attitudes, behaviors, experience with abuse, world view and protective factors that contributed to positive attitudes towards animals. Figure 2 shows the emerged themes and sub-themes.

**Figure 2**

*Identified Themes and Sub-themes*



### ***Feelings and Attitudes***

The first theme that emerged from the interviews was the range of feelings and attitudes expressed by the interviewees towards animals, their treatment, their abuse, and their nature.

Four subthemes emerged under this theme covering the interviewees' positive attitudes towards animals, their negative feelings about abuse, their diverse feelings about meat consumption, and how they view different types of animals.

**Positive Feelings Towards Animals.** Seven out of the eight participants (five women and two men) clearly expressed their feelings of love and affection for animals. They talked about how they love all animals or specifically have a love for dogs. They discussed how they feel happiness and warmth when they see animals in the street and how they closely watch their pets move and interact with them at home. One participant talked about the pain of losing a pet. Four out of the eight participants (three women and one man) also talked about the importance of assuming responsibility for any animal they are in charge of as a pet. This included assuming the physical and psychological wellbeing of the animal and putting effort to take care of it such as reading about their behavior or asking experts. One participant mentioned that having a dog as a pet taught her a sense of responsibility.

**Negative Feelings Towards Abuse and Harm.** All eight participants have expressed some form of negative feelings towards animal abuse or animals experiencing harm in general. These feelings included the feeling of suffering and experiencing personal pain when seeing animals being slaughtered either during Eid-Al Adha festivities or in general. Feelings of anger, frustration, and ill-wishing to people who abuse animals (beating, throwing a pet in the street, organizing dog fights, and others). Another common feeling was feeling "depressed", "stressed", "sad" or experiencing "trauma" or "shock" or "a panic attack", as stated by the participants when they see or hear about abuse or harm, or even when they see an animal getting hurt other than by

human hands. Another negative feeling was the feeling of guilt and helplessness when seeing animals in cages and feeling incapable of providing help. All participants also condemned one or more of the following abusive acts: buying pets rather than adopting, organizing dog fights, throwing pets in the streets, experimenting on animals, poisoning stray animals, buying breed dogs, and not following Islamic teachings during slaughter.

**Mixed Feelings About Meat Consumption.** Four participants expressed mixed feelings about consuming meat. They expressed some form of struggle when consuming meat because, on one side, they felt they depended on it for a living, and on the other side, they disagreed with some slaughtering practices or felt distressed about the idea of slaughtering in general. These participants expressed being unsuccessful in their efforts to become fully vegetarian; However, they all talked about their efforts in reducing their meat consumption either by abstaining from eating a certain animal or by limiting their meat consumption to only chicken or not eating an animal if they saw it being slaughtered. For example, one participant said, “How can one play with a cat or a dog in the street and love them, then cook Molokheya/soup with an animal similar to them?”

**Animals Categorization.** Interview participants did not all view all animals as the same. Six of the participants (three men and three women) discussed differences between animals in awareness and expressing emotions. Some talked about how the awareness of a chicken is not like a dog’ awareness, how a hamster is not like a rat, how cats show fewer emotions than dogs or the opposite, how reptiles cannot feel the pain of those around them, and how animal treatment depends on the type of animal. All the interviewed men (and none of the women) discussed how harmful mice/rats are, classifying them as a category of animals that do not deserve empathy. They discussed how mice/rats and insects should be exterminated using any means (trap, beaten with a cane, with poison) and how they deserve a harsher treatment because

of their nuisance and appearance. Two of the men also talked about how harmful dogs can be and the obligation of not having them inside the house from an Islamic standpoint, and how they can be bearers and transmitters of diseases.

### ***Behaviors***

The participants talked about the different behaviors they engage in when it comes to the treatment of animals, their efforts to improve the situation for animals in their communities and attempts to stop and prevent abuse.

**Helping Behavior.** Five participants (three women and two men) discussed being involved in feeding stray animals. They talked about feeding stray cats and dogs in the streets or on the stairs of their buildings. They either bought them dry food specifically or gave them scraps of food while making sure that the food offered did not harm them (bones, for example). Two of the participants talked about how they participate with their family members (mother, brother, husband) in paying to buy food for the strays. Another participant mentioned that they stopped feeding the strays since the beginning of the Covid-19 pandemic out of fear that the animals would transfer the virus to them. Four other participants mentioned being involved in rescue efforts for stray animals, fostering efforts, and connecting and donating to animal shelters across Cairo.

**Interventions to Stop Abuse.** Five participants (three women and two men) talked about how they usually intervene if they see an act of animal abuse. Most interventions mentioned were aggressive in nature, like using a loud voice, getting into a heated argument or dispute with the perpetrator of the abuse, and trying to save the animal from their hands. Two participants mentioned using religious discourse while trying to convince others to stop an abusive act. As one participant said, regarding the stories they hear about poisoning strays, “There are people

who have a religious inclination ... but they do not know that what they do is forbidden and that our Lord will hold them accountable for this”.

**Alternative Ways to Address Danger.** When asked about situations where violence against animals is used, seven participants mentioned using violence only in the case of danger. They listed several situations like getting physically attacked by a dog, feeling that their life is in danger, using violence as a last resort, and in self-defense. They also emphasized their certainty of the animal's ability to cause harm, as in the case of an animal being vicious, with the physical capability to injure or cause death, or if the animal has clear signs of rabies. Five of those participants listed alternative ways of dealing with a potentially dangerous situation. They use ways to move away and take an alternative route than the one where the animal is. The interviewees also talked about the existence of many alternatives to poisoning animals which they attribute to fear. These alternatives include asking those who feed animals to put the food away from the buildings and calling local veterinary units or animal shelters to handle and move away from dogs from the street.

### ***Experience with Abuse***

All eight participants discussed different types of abusive acts they encountered in their daily lives.

**Breed Dogs.** Four participants (two women and two men) talked about the problem of the ownership of breed dogs as a sign of power and prestige. The men talked about how they have encountered other men owning breed dogs to stand out or look scary or violent to the public, using them to intimidate people in the neighborhood, ordering them to attack their enemies, and using them when going into a fight.

**Slaughtering Practices.** When asked about their views regarding animal slaughter practices in Egypt, five of the participants (three women and two men) talked about the cruelty

they had seen during slaughtering practices. They explained the distress and violence that the animals faced and the harsh treatment by people such as slaughtering animals in front of one another, slaughtering in the street during Eid-Al Adha, hitting the animal with knives before the slaughter, leaving blood everywhere during Eid-Al Adha, the cruel treatment of chickens by the chicken mongers, having inexperienced people attempt slaughter during Eid-Al Adha, and generally not following Islamic teachings of slaughter. One of the participants even condemned the idea of slaughtering animals after raising them in the house.

**Abuse from Officials.** Three participants (one woman and two men) discussed the abuse done by government entities. They gave examples of local municipalities doing wide poisoning campaigns and spending a huge amount of money on poison. One participant talked about seeing a police car hitting an animal in the street on purpose and using their power to evade questioning. In this particular case, the participant talked about the public condemnation of this accident; however, two other female participants talked about the lack of public condemnation and bystanders' apathy when witnessing animal abuse in the street.

**Abuse by Children.** A common sight of abuse mentioned by six of the participants (three women and three men) was abusive acts by children. The participants listed several examples of children seen causing direct harm to animals for fun and entertainment purposes. Some of the examples included children tasing strays, especially cats, and laughing at their reactions, tricking cats with food to fall into tubs of water, hitting dogs with wooden sticks, taking puppies away from their mothers and leaving them to die, aggressive play with animals like holding cats by their tails, tying a rope around dogs' necks and leaving the rope tight, buying chicks sold in front of the schools, playing with them and leaving them to die. One of the participants who helps with rescue and rehabilitation missions said, "... the little child we see in



the street ... he takes a small puppy from its mother, puts it in a plastic bag and digs a hole in the garden and wants to bury this puppy”.

**Pet Abuse.** Four participants (three women and one man) also talked about the abuse suffered by pets, especially dogs (three women and one man). They discussed how certain breeds like the Husky dog do not belong in the Egyptian climate, and how people confine dogs in small spaces or over the roof of the building, or on the balcony, not caring about their suffering from fleas or sickness, and how people abandon pet dogs in the street when they get old.

**Other Examples of Abuse.** Six of the participants (three women and three men) listed other examples of animal abuse encountered over the years. One prominent example was poisoning stray animals (poisoning a new dog mother and its puppies, mass poisoning in the participant's street, using poison that works on the nervous system making the animal suffer immensely before dying, and putting poison in the food and presenting it to hungry stray animals. Other listed examples encountered by the participants included abuse faced by animals in pet shops and markets like El Gomaa animal market, deliberately running over stray animals in the street, and hitting and beating strays with rocks and sticks. Two of the six participants (one woman and one man) talked about coming across support or encouragement of abuse through social media. One of them gave the example of watching a religious TV personality giving his blessings to poison cats in the building because they are a nuisance. The other gave the example of the spread of memes about animals being evil and dogs chasing after Fajr prayer supplicants.

### ***World View***

All participants shared their views and interpretations of animal abuse, how they made sense of it, and suggestions for improving the situation of animals living in Egypt.

**Explanation of Abuse.** All eight interview participants provided one or more explanations for the reason people mistreat animals in Egypt. These interpretations were based

either on their firsthand experiences and observations or on their own interpretation of the situation. One of the reasons shared by almost all the participants was the application of the law. All the participants were not aware of any animal protection laws in Egypt even though two of them were lawyers. They believed that even if a law exists, there is no mechanism for enforcing it. Based on their experiences, some participants explained that law enforcement officials do not take animal offenses seriously and usually ridicule people who make complaints. Some participants even shared that they do not think that law is even applied for humans. Another explanation shared by a few participants is that abuse is backed by wrong interpretations of religious verses. One participant shared seeing a renowned Islamic television personality giving the green light to poison cats.

Another common explanation was people treating animals as objects or toys in the case of children. One participant who volunteers in the rescue and rehabilitation of abused stray animals mentioned negotiating a price to save a dog from its neglectful owners. Participants also discussed how people have wrong information about animals. According to the participants, people think animals have no feelings, misinterpret their movement or nature as attacks, see them as unclean and source of illness, and wrongfully use physical violence with dogs for obedience. A general lack of interest in animals or animal rights and a lack of empathy toward them were also among the explanations used by the participants. Some interviewees used the terms “toxic masculinity” and the desire to be perceived as manly with no emotions and “mental illness” or “sadistic tendencies” to explain people who repeatedly abuse animals. A number of interviewees believed that a sense of selfishness and entitlement makes people not care about other living beings and the environment around them. A few participants explained that people who poison stray animals usually do so out of fear or to eliminate any waste caused by them, or to reduce the number of stray animals in the street. One participant, who works for a non-profit organization in

a low socioeconomic neighborhood, explained that animals or animal rights are not a priority for people living in these conditions where poverty and the stress of making a living reduce their ability to empathize with animals. Poverty and being brought up around violence were used to explain the abuse, especially organized dog fights. Other participants mentioned that the lack of public condemnation or bystanders' apathy when seeing abuse is normal, unlike Western nations. Some other explanations include the feeling of power and authority and the existence of a "violence cycle" where children, abused at home, take it out on weaker creatures and animals. Pet abuse, as in locking them up, hitting them, or abandoning them in the street, was explained by the lack of empathy of the owners, their reluctance to take care of their pets, or their annoyance with animal shedding. The bad influence of social media and violence in video games were used to explain what some children do to animals.

**Participants' Suggestions.** Six interviewees highlighted the importance of having abusive acts that target animals punished by law, as in the case of poisoning stray animals. Some of those participants even explained that they believe punishment in the case of animal abuse should be harsher than in other cases. Some participants offered suggesting for improving the situation such as: starting the education of children at schools, allocating the budget of poison used by the municipalities for building animal shelters, raising awareness about the sentience of animals; raising awareness about adopting animals instead of shopping, having religious institutions like Al Azhar and the Church talk about this problem, filming and reporting abusive cases to the police, and including animals and animal rights in books taught at schools.

### ***Protective Factors***

During the interviews, participants touched upon many factors that helped them have positive attitudes and behaviors towards the treatment of animals. These factors varied in nature and differed across the lifespan.

**Animal Vulnerability.** All interview participants talked about their perception of animals as a vulnerable population. Four of the interviewees explicitly described animals as a vulnerable and ostracized group because they need help and protection from humans or resemble a person with a disability. Six of the interviewees (three men and three women) discussed how the inability of animals to express or verbally communicate their needs, their pain, and their hunger, to people make them vulnerable. Five of the participants (four women and one man) talked about considering animals as like children. They explained how animals share the same attributes as children especially their spontaneity, their playfulness, their innocence, and behavior.

**Understanding Animal Sentience.** All participants demonstrated an understanding of animal sentience as their ability to experience positive and negative feelings and emotions. When asked if they think that animals can feel pain and joy, all the participants agreed. Throughout the interviews, they also showed their understanding of this idea. They talked about the following ideas: the need for stray animals to have the same sense of security as house pets; how they feel joy and happiness; how they feel fear and pain; how pets feel safe around their owners (human friends); how stray animals approach people for tenderness; how they feel danger and try to protect themselves. Participants also talked about the feeling of suffering experienced by stray animals, especially abandoned house pets. All eight interviewees talked about the inability of abandoned house pets to adapt to street living and to find food, how they are afraid of everything and lack similar survival experiences as street animals, how they get attacked by street animals and experience immense suffering in the street before succumbing to death. Five of the participants talked about the animal's ability to detect feelings in humans and how they can sense the sadness in humans and can feel the people who love them and those who mean them harm.

**Knowledge About Animals.** All the participants touched upon topics related to their knowledge of animal nature, their basic rights and needs, and their benefit to humans. Six of the participants (three women and three men) talked about their understanding of animal nature, such as: their nature not to harm unless provoked or abused, the harmlessness of stray animals, especially dogs, animals having their own social system, their appropriate living environments, the difference between species in dependence on humans, in addition to debunking some myths like cats causing infertility to women. All eight interviewees demonstrated knowledge of basic animal rights and needs such as the rights of animals not to be harmed, their right to live, their right to living in appropriate environments and not living in captivity, and their rights of access to food, water, and safety. The participants also talked about animals' need for compassion and care and defense from humans, even more than humans themselves. Four of the interviewees (three women and one man) discussed the importance of animals in the ecosystem. They discussed how street dogs keep away other smaller animals like snakes or insects from harming people, as well as how their existence is important for a balanced ecosystem. They also talked about the benefit of animals to humans in terms of providing feelings of love and warmth. Lastly, four of the interviewees (three men and one woman) mentioned their ability to detect feelings in animals such as joy, fear, pain, and jealousy. They also demonstrated their understanding of the suffering street animals feel and the constant fear they live in to survive.

**Social Learning.** Seven of the participants (five women and two men) talked about the way they saw their parents (mother, father, and grandmother) treat animals. All seven participants had not seen any of their parents treat an animal maliciously. Six of those participants (four women and two men) discussed growing up watching either one or both of their parents, or their grandmother, treat animals with mercy, feed strays and/or birds, and preach to them the importance of doing no harm and helping animals. One female participant said,

I remember a story about my grandmother when she found a cockroach in the house. She would grab it and put it on the window of her apartment on the ground floor and tell it “Go to your family”. I think if people, in general, are not harmful, then their children will also not be harmful.

Another female participant said, “While growing up, my mother used to put food out for pigeons, birds, and doves in the balcony and used to play with us on the balcony, and I loved that time.”

Other participants, whose families did not interact directly with animals or feared them, talked to them from childhood about the importance of not harming animals following the example of the Prophet Mohamed (peace be upon him). Those six participants listed a number of positive actions that their parents did such as: taking good care and assuming responsibility of the pets they have, feeding stray animals, and stopping people who harm animals in the street.

Participants also talked about the positive feelings their parents had for animals and their feelings of love, affection, and empathy for them. These positive feelings and actions happened even when parents objected to having pets at home (namely cats and dogs), which was mentioned by five of the participants, and the parents’ involvement in raising animals for consumption (chicken and rabbits) which was mentioned by four of the participants.

Another aspect of social learning mentioned by the participants was peer influence or following friends’ advice when it comes to animal interaction. All three male participants spoke of this issue regardless of the type of influence (positive or negative). A common theme across all three male participants is the influence of male friends during childhood. Two of those three participants followed their friends’ advice during childhood on how to keep street dogs away by throwing stones at them and how dogs fear the stones and move away once they see it. The third male participant mentioned how he was influenced by his friends to go and see a rabbit being slaughtered at the chicken monger. He recalled his friends laughing at the sight of the rabbit

screaming before slaughter and mentioned that one of his friends used to bully not only animals, but also him and his friends. In contrast, two of the male participants mentioned how, currently, they are affected positively by the conversations they have with their friends who raise dogs, and how some friends became vegetarian, and their attempts at “raising the consciousness”.

**Positive Childhood Experience.** Seven of the participants (five women and two men) mentioned having some type of positive childhood experience with one or more types of animals. Their experiences varied as some participants owned small pets, particularly birds, tortoises, fish, and cats. Some used to interact and play with cats owned by their grandmothers, while others used to play with rabbits and chicks, brought home for food consumption. Some participants fed stray cats in their buildings or just helped their parents feed the strays or the birds.

**Transformative Interactions with Animals.** Four of the participants (the three men and one woman) discussed how they used to have negative feelings towards some animals, in particular cats or dogs, during childhood. They explained that they used to fear dogs or have a “phobia” of cats. Two of the men explained that they tried to hit dogs during childhood due to fear, or to keep them away, or as misinterpretation of their playful jumps as attacks. Seven of the participants (four women and the three men) discussed experiencing a positive shift in knowledge and/or attitudes towards the animals (the four that used to fear dogs plus another three participants). This shift included the following: an increased sense of love and empathy towards cats and/or dogs, an increased understanding of the nature and behavior of the animals, an increased understanding of the complexity of the awareness and sentience of the animals, and an increased sensitivity towards harm of animals. One main factor behind this shift was the exposure and close interactions with animals. The participants explained that this shift occurred when they had the chance to spend more time with the animals, observing their behaviors and

interacting with them. One man said, “A few years back, I used to be afraid of stray cats and dogs; I don’t know what happened, but one time I was about to eat, and a stray cat started getting close to me, so I fed it, and then I found myself feeding all the street cats then the dogs.” Another man also said, after interacting with his friends’ pets, “I was very surprised by the degree of their awareness, it was not what I imagined... if I just yelled at a pet, it gets upset and walks away”. The interactions were varied and diverse: for example, a cat entered the house of a participant and gave birth there, a participant started interacting with the pets of their friends, street animals approached one of the participants slowly asking for food, a participant saw an animal being harmed for the first time and saw their suffering, and participants owning pets for the first time in their adulthood.

**Religion.** Six of the participants (three women and three men) either recited quotes from the Sunnah, words of the Prophet Mohamed (peace be upon him), or mentioned good deeds related to animal treatment in Islam, when asked about their knowledge of the standpoint of their religion vis-a-vis animal treatment. Quotes included the good deed of the person who gave water to a thirsty dog, the woman who was condemned because she locked up a cat with no access to food or drink, and the proper Islamic instructions for slaughter. Those participants discussed how Islam calls for mercy upon all God’s creatures. While two of the participants attributed a substantial percentage of their positive attitudes and behaviors to religious instructions, five of the participants said that religion was not the first reason why they had positive attitudes and behaviors towards animals. One female participant said in this regard, “For me the stage of positively interacting with animals as a child came before the stage of understanding religion ... frankly, if I wasn't raised this way, I don't know what the situation would have been”.

**Media exposure.** Six participants (three women and three men) talked about the role of media and literature in shaping their attitudes and empathetic reactions towards animals. The



participants talked about books, movies, cartoons, and television shows with real animals or animal characters that affected them in childhood. They talked about how they could feel that the animals were nice, had feelings, and loved their owners from these movies. Some participants mentioned how they used to feel empathy for animals in movies, and how they cannot ever forget the feelings generated by the movie. More recently, participants, especially younger ones, talked about being affected by social media videos. The content of these videos varied from showcasing animal harm and abuse to online campaigns against animal cruelty or just clips about animals showing emotional reactions to different events. The participants explained how they reacted positively or negatively to these videos and how they understood animal sentence watching them.

### **Discussion**

This research examined the attitudes and behaviors of Egyptian university students and graduates towards animal treatment and abuse, the correlation between witnessing and committing animal abuse, and the potential protective factors identified by those who have positive attitudes and behaviors toward animals referred to as positive deviants. Quantitative and qualitative data collected informed several key findings. The results indicated that overall, attitudes toward animals were on the positive side. The lowest attitude scores among participants were for statements concerning adopting a vegetarian diet, while the highest attitude score was in opposition to the killing of unwanted street dogs. The results also showed a significant difference between the total attitudes of men and women regarding the use of animals in society, but no significant difference in attitudes between people who own a pet and those who do not.

A large majority of survey participants had witnessed animal slaughter, abuse, and torture. About a quarter of all survey respondents have committed at least one act of animal

abuse, with throwing stones at a street animal as the most committed act of abuse of all acts. All the participants who reported committing abuse did only one type of abuse, either hurting an animal in the street or at home or deliberately causing pain to an animal. Most of these acts were committed during childhood and adolescence and mainly targeted dogs. Less than half of the acts were committed in the presence of friends and peers, and the most common reason for abuse was fear. While exposure to animal abuse, in general, was not related to committing abuse, it was found that those who were exposed to animal abuse in childhood were more likely to perpetrate it than those who were exposed in adolescence or adulthood. There was no significant difference between men and women in terms of the number of abusive acts committed.

The qualitative data analysis reflected five themes: feelings and attitudes, behaviors, experience with abuse, world view, and protective factors. Eight protective factors were identified: animal vulnerability, understanding animal sentience, knowledge about animals, social learning, childhood experiences, transformative interactions with animals, religion, and media exposure.

### **Overall Attitudes Toward Animals**

To see if Egyptian college students and graduates have worse attitudes toward animals than those in other countries, we compared the results of the present study to an international study by Phillips and McCulloch (2005). They administered the same scale, “The Belief in the Use of Animals in Society,” among university students from 16 nationalities aged between 16 and 30 living and studying in the United Kingdom. The comparison shows that the Egyptian participants had a higher mean score (had more positive attitudes) on 14 out of the 16 statements. The highest score difference was on question four (killing unwanted dogs) and seven (declawing a cat to stop it from scratching the furniture). Egyptian participants had the exact mean score on statement nine (traps that injure an animal) as the international students and lower scores on one

statement only (statement 15 on humans as natural meat-eaters). A possible explanation for this surprising result could be the nature of the convenience sample, where people with already positive attitudes and some interest in animal welfare were more inclined to take a survey on the topic of animal treatment. However, the lower mean score on the statement about humans as natural meat eaters is not surprising, probably due to the normality of sacrificing animals for religious and charitable purposes. An important note here is that the scale had moderately acceptable reliability (Cronbach's alpha at .699).

An important key finding of this research is the difference between men and women in the attitudes towards animal use in society. There was a significant difference between men and women in their total attitudes scores, women were almost twice as likely than men to complete the survey, and the first nine highest scores on the attitudes scale belonged to women. This result is congruent with previous research where women's attitudes toward animals were consistently higher than men's across studies and cultures. Women have been found to be more supportive of animal rights and welfare and have more empathy for animals (Hagelin et al., 2003; Herzog, 2007; Pifer et al., 1994). Similarly, Phillips and McCulloch (2005) found that women were more opposed to the suffering of non-human animals and more supportive of animal welfare than men. This gender difference can be explained by environmental factors, as women are socialized for the role of mothers, caregivers, and nurturers (Luke, 2007), while men are encouraged to dissociate from all tasks attributed to women in the household once they reach puberty (Mensch et al., 2003). This finding is supported by the fact that almost all the female participants interviewed described animals as like children in the present study. This could also explain why the attitudes towards animals found in the sample were higher than their international counterpart because women constituted about two-thirds of the current survey sample. This trend did also extend to the behavior of committing animal abuse. In the current survey sample, 33.3% of the

male respondents committed abusive acts towards animals compared to 19% of the female respondents. This trend is similar to other studies where men are almost always more involved in acts of animal abuse compared to women (Arluke & Luke, 1997; Baldry, 2005; Dadds et al., 2004; Flynn, 2001; Miller and Knutson, 1997; Thompson & Gullone, 2006). However, the percentage of females in this sample was still relatively high compared to other studies.

In previous studies, animal abuse was always linked to instances of antisocial behavior and aggression, where men are usually the perpetrators (Gullone, 2014; Loeber & Hay, 1997). However, in the current study, the incidents of animal abuse might not have been driven by aggression but rather by fear of animals. According to 42% of the survey's participants who reported committing at least one act of abuse, fear was the top reason behind their behavior. This includes fear of getting bitten by a dog or fear of cats getting too close. This fear response makes sense in a culture where dogs are seen as impure by a large portion of the population and pet ownership is very low (according to this study). In addition, stray animals, such as cats and dogs who are sometimes feral and aggressive, can be found in every street in the country.

A total of 64.6% of respondents who had seen an animal being tortured in the streets reported that the perpetrators were primarily strangers, followed by children, followed by working-class individuals. Notably, among the number of interpretations of the abusive behaviors witnessed by the participants, the most common interpretation was fear of being attacked or bitten and wanting to get rid of the animals, primarily dogs. According to Dadds (2008), animal communication can be seen as ambiguous, and thus, adults and children might interpret them as hostile. Adults or children who are not familiar with animal behavior might likely interpret a dog barking at them to protect their territory or a cat getting too close asking for food as a sign of aggression and thus move first to defend themselves. A total of 36.6% of participants reported currently owning a pet, which is lower than the United States, where 78.1%

reported currently owning a pet, and 96.4% have owned a pet during their childhood (Henry, 2004). This low percentage of pet ownership compared to Western countries could be why many people are not familiar with animal behavior and thus interpret many street animals' behavior as aggressive.

There was no significant difference in the current study in the attitudes towards the use of animals in society between those who reported owning a pet and those who did not. A possible explanation for this result is that people who participated in the study already have relatively positive attitudes towards the treatment of animals.

The results showed very high exposure to Halal slaughter, as 85.9% of the survey respondents had been exposed to it. While most of the exposure happened during childhood, no significant difference in attitudes towards the use of animals in society was found between people who had their first exposure to halal slaughter during childhood (between two and twelve years old) and those who had their first exposure at an older age (13 and above). However, there was a statistically significant difference in attitude scores between the group never exposed to animal slaughter and those exposed to it at the age of 13 or above. The mean score of the attitudes for the young exposure group was lower than the adolescent exposure group, which was lower than the group never exposed to animal slaughter. It could be that the younger the person is when exposed to animal slaughter, the more desensitized they are towards the practice. The theory of social comparison might also explain this finding (Festinger, 1954). As young children observe animal slaughter practices, they get their cues on how to react from the adults who participate in this practice. When they see adults react festively or in an undisturbed manner around the practice, they tend to behave in the same style and adopt similar attitudes.

Also, no significant relationship was detected between the age of exposure to slaughter and committing acts of animal abuse. A possible explanation of these findings is the

consideration of Halal slaughter as a religious good deed by Muslims, unassociated with abuse and guided by rules on the humane treatment of the animal to be slaughtered. However, interviewed positive deviants shared a different side of the actual practice of Halal slaughter in Egypt. An emerging sub-theme within the theme of abusive behavior experienced by the interviewees was the slaughtering practices across Egypt. Interviewees discussed how they had seen the inhumane and harsh treatment of the animals to be slaughtered, departing from Islamic teachings, and discussed the general atmosphere during Eid-Al Adha, where blood and odor are spread everywhere in the streets. Exposure to animal abuse was also very high, as 71.7% of the survey respondents reported witnessing some form of animal abuse during their lifetime. This percentage is extremely high in comparison to research in the West. Henry (2004) found this rate to be 50.9% among university students, while DeGue and DiLilo (2009) found it to be 22.9% also among university students.

In the present study, about 20% of those who witnessed an animal being tortured in the street identified children as the perpetrators of the abusive behaviors. Interviewed participants also shared their experiences and concerns with this phenomenon. Many of the interviewees had seen children harming animals for entertainment, torturing them to see their reactions, taking puppies away from their mothers in addition to other rough and abusive play. Among the participants who reported committing at least one act of animal abuse, 41.6% started between the ages of six and twelve, and 29.1% started between the ages of 13 and 18. Therefore, the results indicate a high level of involvement of children in violent acts towards animals in Egypt. This finding is not consistent with other research that argues that most of the abuse is perpetrated by people in later adolescence and early adulthood (Arluke & Luke, 1997).

A significant relationship was found between the age of first exposure to animal abuse and abusive behavior toward animals. Those who first witnessed some form of animal abuse

between the ages of six and twelve committed abusive behavior towards animals more frequently than expected. However, the age of first exposure, and not exposure itself, was significant, probably because exposure, in general, is common in Egypt. This result is similar to the ones found by Henry (2004a, 2004b). People who were exposed to animal abuse at the age of 12 or younger were more likely to engage in animal abuse than those exposed to animal abuse at an older age. Alleyne and Parfitt (2018) also found an association between exposure to legal animal killing during childhood and animal abuse, even though no age of exposure was specified. Similar to the findings related to animal slaughter exposure, social comparison theory could explain this result (Festinger, 1954). Children who observe animal abuse and see how normal other people's reactions might adopt similar attitudes and behaviors.

Although most of those who reported witnessing abuse identified the perpetrators as strangers in the streets, friends and peers were the most witnessed group of familiar people to be seen as perpetrators of animal abuse. As for those who reported committing acts of abuse, 41.6% of them said they were accompanied by peers and friends, followed by "alone" at 29.1%. A possible interpretation of these findings could be that children are influenced by their friends and peers and learn from them abusive behavior towards animals. Similarly, committing acts of animal abuse influenced by peers was reported by studies in the West (Arluke & Luke, 1997; Chan et al., 2019). The interviewed positive deviants also shared influence by peers and family experience (family members' behavior). All three men interviewed discussed how they were influenced by their friends and peers during childhood to commit violence against animals. They learned from them how to keep dogs away using stones and other tools. This finding can be explained by the social learning theory, which contends that children learn a certain behavior by observing it (Bandura, 1977, 1978). It could also be explained by the previous research on

aggression, where aggressive behavior is influenced by witnessing aggression (Cummings, 1987; Davies, Myers, Cummings, & Heindel, 1999).

Furthermore, social learning was mentioned as a protective factor against animal abuse by the interviewed participants. Most of the interviewed participants shared how they had observed family members (mother, father, grandmother) tend to and care for animals during their childhood. They said they learned positive attitudes and behaviors from watching their parents.

Committing acts of abuse was reported by 24.2% of the survey respondents. This percentage is relatively high compared to other studies conducted with university students. DeGue and DeLilo only found 4.3% of animal abuse perpetrators in their samples, while Henry (2004) found a higher percentage of 17.8% of his sample to have committed at least one act of abuse. The reasons for abuse, such as fear of animals and anticipation of aggression, the engagement of both men and women in acts of violence against animals, and the low percentage of pet ownership, could explain the high rate of animal abuse in this study, as these may lead to the lack of familiarity with animal behavior and the perception of certain animal behavior as hostile. With the large population of stray animals in the streets of Egypt, fear and unfamiliarity with animal behavior could be one of the main reasons why people tend to commit abusive acts. Furthermore, the high percentage of children engaging in abusive and creatively violent behavior towards animals can also be explained with displaced aggression theories (Chan et al., 2019; Dollard & Miller, 1950; Merz-Perez & Heidi, 2004), especially with the high percentage of severe physical punishment experienced by children in Egypt (Anwar Abdel-Fatah, 2021; Mansour et al., 2010)

Many elements of Agnew's (1998) theory of animal abuse were identified by the interviewed positive deviants as protective factors in addition to findings from the survey.

Agnew (1998) theorized that animal abuse is determined by three factors: the ignorance of the



consequences of abuse, the perceived benefit from abuse, and the degree to which abuse can be justified. He added that all three factors differ between people depending on their individual traits, level of social control, socialization, and history with companion animals, among others. The interviewees shared that they had seen abusive animal treatment as justified for the greater good, which is a factor in Agnew's explanation of animal abuse. Individual traits also were shown to be a protective factor against animal abuse. This includes socialization and the impact of the family experience and media in shaping the behavior of individuals. Another factor of Agnew's theory that was demonstrated in the results is that the type of animal and attributed level of sentience impacts abuse. From the survey results, about 25.3% of the respondents reported intentionally killing or poisoning rodents or insects. Some of the interviewed participants believed that rodents and insects do not deserve empathy and should be killed in any way or form, even if it causes them pain. Religion was also shown to be a determining factor of animal treatment, as participants in the present study explained that it could be one of the reasons why they do not engage in animal abuse, although not necessarily the first reason. The interviewees also explained how they saw other people use religion to justify abuse. Therefore, religion was shown to be either a protective factor or a risk factor.

In Agnew's theory, close interaction with animals leading to a better understanding of their behavior and level of sentience was also shown to be a protective factor in the current study. Some interviewed participants shared that they experienced a shift in their attitudes towards animals and then in their behavior when they had a chance to interact with and closely observe animals.

### **Limitations and Recommendations for Future Research**

This study has several limitations in the access to data and methodology. As the study focused only on university students and graduates and used an online survey to collect data, the

results only reflect the opinions and experiences of a highly educated category of Egyptian society and those who have access to the internet and social media platforms. In addition, by using a convenience sample, data obtained from the survey are not broadly generalizable and should be interpreted cautiously. A convenience sample also means that those who were attracted to filling out the survey might already have relatively positive attitudes towards animals. The Covid-19 pandemic also played a role in the access to respondents and interviewees. Due to the disorganization of the academic year caused by the pandemic and the irregularity of exam schedules, many university students did not have time to either fill the survey or to sit for an interview. In addition, access to male positive deviants proved harder than female positive deviants, resulting in only interviewing three out of the targeted five men. The protective factors were drawn only from the data obtained from the semi-structured interviews and were based on the information provided by the eight interviewees, and thus must be applied with caution. As for the limitation in the methodology, “The Belief in the Use of Animals in Society” scale (Phillips & McCulloch, 2005) was used because the statements were worded to accommodate an international audience and were not based on western notions of human-animal interactions. For future research, a validated scale that fits the Arab and Egyptian cultures is recommended. Also, questions about animal sentience and specific abusive practices known in Egypt could have been added to the survey and enriched the survey results, reflecting the different opinions on these issues and constituting a more relevant set of behaviors known to the Egyptian society.

As presented earlier, testing the used attitudes scale on a different type of population, or using other attitudes scales altogether might yield different results. It is also important to study different populations within Egyptian society, such as uneducated groups and groups living in disadvantaged neighborhoods. Examining the difference between individuals who grew up in rural settings versus those who grew up in urban settings is also recommended. Another

suggestion for future research is investigating a possible link between animal abuse and violence directed towards children. This is because the current results show that most of the abusive acts start during childhood years. Previous research showed a high percentage of severe physical violence suffered by Egyptian children, raising the possibility of displaced aggression by children. Another suggestion is to collect more qualitative data from men, as the results show more varied experiences with animals than more homogeneous experiences shared by the interviewed women.

### **Recommendations for Prevention of Animal Abuse**

As for future efforts to prevent animal abuse, several recommendations based on the identified protective factors shared by the positive deviants are presented below.

- Creating programs for children where they get to discover the natural world around them, including the animals that live among them in the city, how they behave, the signs of danger, and what to do in case of danger. In addition, there should also be instruction on the sentience of animals, their feelings, and the similarities they have with humans.
- Creating spaces where children get to interact with animals under supervision. This can include playing with animals, caring for them, and feeding them. As Arluke (2003) mentioned, children are naturally drawn to living things because they satisfy their curiosity and their need for living new experiences. Thus, creating a space to foster this interest in a safe way for the animal can replace some of the abusive behavior children tend to do to animals in the streets.
- Teachers and adults in schools and homes need to model positive behavior towards animals as children learn mostly from watching significant others' interactions.

- Social media and literature can be used to disseminate messages of animal sentience and develop empathetic concern for different creatures. Targeted messages and videos on social media platforms can be used to raise the awareness of the general population including information about animal sentience and nature.
- Religion can be used with caution as there are different interpretations of the rules. Having trusted religious authorities talk about the issue of animal abuse could be beneficial.
- Policies need to follow the example of the new addition of animal welfare in the constitution and include clear sanctions on abusive behavior towards animals. The implementation of the laws and policies need to be respected. Thus, animal rights associations can train policy makers and implementers (police members) on this issue.

Prevention efforts and research are needed to further develop our understanding of animal abuse in Egypt and in other Arab countries and its implications on and associations with potential child abuse and interpersonal violence.

### References

- Abd Elhamid, A., Howe, A., & Reading, R. (2008). Prevalence of emotional and behavioral problems among 6–12 years old children in Egypt. *Social Psychiatry and Psychiatric Epidemiology*, 44(1), 8–14. <https://doi.org/10.1007/s00127-008-0394-1>
- Aboul-Hagag, K. E. S., & Hamed, A. F. (2012). Prevalence and pattern of child sexual abuse reported by cross sectional study among the University students, Sohag University, Egypt. *Egyptian Journal of Forensic Sciences*, 2(3), 89–96. <https://doi.org/10.1016/j.ejfs.2012.05.001>
- Adams, C. J. (1994). Bringing Peace Home: A Feminist Philosophical Perspective on the Abuse of Women, Children, and Pet Animals. *Hypatia*, 9(2), 63–84. <https://doi.org/10.1111/j.1527-2001.1994.tb00433.x>
- Adams, C. J. (1995). Woman-battering and harm to animals. In C. J. Adams & J. Donovan (Eds.), *Animals and women: Feminist theoretical explorations* (pp. 55-84). Duke University Press.
- Agnew, R. (1998). The Causes of animal abuse: A social-psychological analysis. *Theoretical Criminology*, 2(2), 177–209. <https://doi.org/10.1177/1362480698002002003>
- Alleyne, E., & Parfitt, C. (2018). Factors that distinguish aggression toward animals from other antisocial behaviors: Evidence from a community sample. *Aggressive Behavior*, 44(5), 481–490. <https://doi.org/10.1002/ab.21768>
- American Psychiatric Association. (1987). *Diagnostic and statistical manual of mental disorders* (3rd ed., rev.).
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). <https://doi.org/10.1177/0269881118806297>

- Anderson, C. A., & Bushman, B. J. (2002). Human Aggression. *Annual Review of Psychology*, 53(1), 27–51. <https://doi.org/10.1146/annurev.psych.53.100901.135231>
- Anderson, C. A., & Huesmann, L. R. (2003). Human aggression: A social-cognitive view. In M. A. Hogg & J. Cooper (Eds.), *The Sage Handbook of Social Psychology* (pp. 296–323). Sage Publications Inc.
- Animals Australia. (2019, October 8). *Investigation – Egypt 2006*.  
<https://www.animalsaustralia.org/investigations/egypt-2006.php>
- Antai, D., Braithwaite, P., & Clerk, G. (2016). Social determinants of child abuse: Evidence of factors associated with maternal abuse from the Egypt demographic and health survey. *Journal of Injury and Violence Research*, 8(1), 25-34. <https://doi.org/10.5249/jivr.v8i1.630>
- Anwar Abdel-Fatah, N. (2021). Determinants of severe physical disciplinary practices against children in Egypt. *Child Abuse & Neglect*, 111, 104821.  
<https://doi.org/10.1016/j.chiabu.2020.104821>
- Arluke, A. (2003). Childhood origins of supernurturance: The social context of early humane behavior. *Anthrozoös*, 16(1), 3–27. <https://doi.org/10.2752/089279303786992314>
- Arluke, A., & Sanders, C. R. (1996). *Regarding animals (animals, culture and society)*. Temple University Press.
- Arluke, A., Levin, J., Luke, C., & Ascione, F. (1999). The relationship of animal abuse to violence and other forms of antisocial behavior. *Journal of Interpersonal Violence*, 14(9), 963–975. <https://doi.org/10.1177/088626099014009004>
- Ascione, F. R. (1999). The abuse of animals and human interpersonal violence: Making the connection. In F. Ascione & P. Arkow (Eds.), *Child abuse, domestic violence, and*

- animal abuse: Linking the circles of compassion for prevention and intervention* (pp. 50–61). Purdue University Press.
- Ascione, F. R. (2004). Children, animal abuse, and family violence-the multiple intersections of animal abuse, child victimization, and domestic violence. In K. A. Kendall-Tackett & S. Giacomoni (Eds.), *Victimization of children and youth: Patterns of abuse, response strategies* (pp. 3.1 – 3.34). Civic Research Institute.
- Ascione, F. R. (2007). Emerging research on animal abuse as a risk factor for intimate partner violence. In K. Kendall-Tackett & S. Giacomoni (Eds.), *Intimate partner violence* (pp. 3.1 –3.17). Civic Research Institute.
- Ascione, F. R. (2014). *Children and Animals: Exploring the roots of kindness and cruelty*. Purdue University Press.
- Ascione, F. R., & Arkow, P. (1999). *Child abuse, domestic violence, and animal abuse: Linking the circles of compassion for prevention and intervention* (1st ed.). Purdue University Press.
- Ascione, F. R., & Shapiro, K. (2009). People and animals, kindness and cruelty: Research directions and policy implications. *Journal of Social Issues*, 65(3), 569–587.  
<https://doi.org/10.1111/j.1540-4560.2009.01614.x>
- Ascione, F. R., Thompson, T. M., & Black, T. (1997). Childhood cruelty to animals: Assessing cruelty dimensions and motivations. *Anthrozoös*, 10(4), 170–177.  
<https://doi.org/10.2752/089279397787001076>
- Ascione, F. R., Weber, C. V., Thompson, T. M., Heath, J., Maruyama, M., & Hayashi, K. (2007). Battered pets and domestic violence. *Violence Against Women*, 13(4), 354–373.  
<https://doi.org/10.1177/1077801207299201>

- Baldry, A. (2004). The Development of the P.E.T. scale for the measurement of physical and emotional tormenting against animals in adolescents. *Society & Animals*, 12(1), 1–17.  
<https://doi.org/10.1163/156853004323029513>
- Baldry, A. C. (2005). Animal abuse among preadolescents directly and indirectly victimized at school and at home. *Criminal Behavior and Mental Health*, 15(2), 97–110.  
<https://doi.org/10.1002/cbm.42>
- Bandura, A. (1976). *Social Learning Theory* (1st ed.). Prentice-Hall.
- Bandura, A. (1978). Social learning theory of aggression. *Journal of Communication*, 28(3), 12–29. <https://doi.org/10.1111/j.1460-2466.1978.tb01621.x>
- Bandura, A. (1990). Selective activation and disengagement of moral control. *Journal of Social Issues*, 46(1), 27–46. <https://doi.org/10.1111/j.1540-4560.1990.tb00270.x>
- Beierl, B. H. (2008). The sympathetic imagination and the human-animal bond: Fostering empathy through reading imaginative literature. *Anthrozoös*, 21(3), 213–220.  
<https://doi.org/10.2752/175303708x332026>
- Beirne, P. (1999). For a nonspeciesist criminology: Animal abuse as an object of study. *Criminology*, 37(1), 117–148. <https://doi.org/10.1111/j.1745-9125.1999.tb00481.x>
- Beirne, P. (2004). From animal abuse to interhuman violence? A critical review of the progression thesis. *Society & Animals*, 12(1), 39–65.  
<https://doi.org/10.1163/156853004323029531>
- Blonigen, D. M., Hicks, B. M., Krueger, R. F., Patrick, C. J., & Iacono, W. G. (2006). Continuity and change in psychopathic traits as measured via normal-range personality: A longitudinal-biometric study. *Journal of Abnormal Psychology*, 115(1), 85–95.  
<https://doi.org/10.1037/0021-843x.115.1.85>



- Boat, B. W. (1999). Abuse of children and abuse of animals: Using the links to inform child assessment and protection. In F. Ascione & P. Arkow (Eds.), *Child abuse, domestic violence, and animal abuse: Linking the circles of compassion for prevention and intervention* (pp. 83-100). Purdue University Press.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Burchfield, K. B. (2016). The sociology of animal crime: An examination of incidents and arrests in Chicago. *Deviant Behavior*, 37(4), 368–384.  
<https://doi.org/10.1080/01639625.2015.1026769>
- Center for Compassionate Living (1999). *Sowing seeds workbook: A humane education primer*. Center for Compassionate Living.
- Chan, H. C. O., & Wong, D. S. (2015). Traditional school bullying and cyberbullying in Chinese societies: Prevalence and a review of the whole-school intervention approach. *Aggression and Violent Behavior*, 23, July-August, 98–108.  
<https://doi.org/10.1016/j.avb.2015.05.010>
- Chan, H. C. O., & Wong, R. W. (2019). Childhood and adolescent animal cruelty and subsequent interpersonal violence in adulthood: A review of the literature. *Aggression and Violent Behavior*, 48, 83–93. <https://doi.org/10.1016/j.avb.2019.08.007>
- Coston, C. T. (1998). Kill your dog, beat your wife, screw your neighbor's kids, rob a bank? A cursory look at an individual's vat of social chaos resulting from deviance. *Free Inquiry in Creative Sociology*, 26(2), 153-158.
- Cummings, E. M. (1987). Coping with background anger in early childhood. *Child Development*, 58(4), 976. <https://doi.org/10.2307/1130538>

- Currie, C. L. (2006). Animal cruelty by children exposed to domestic violence. *Child Abuse & Neglect*, 30(4), 425–435. <https://doi.org/10.1016/j.chiabu.2005.10.014>
- Dadds, M. R. (2008). Conduct problems and cruelty to animals in children: What is the link? in F. R. Ascione (Ed.), *The international handbook of animal abuse and cruelty: Theory, research, and application* (pp. 111–131). West Lafayette, IN: Purdue University Press.
- Dadds, M. R., Whiting, C., & Hawes, D. J. (2006). Associations among cruelty to animals, family conflict, and psychopathic traits in childhood. *Journal of Interpersonal Violence*, 21(3), 411–429. <https://doi.org/10.1177/0886260505283341>
- Dadds, M. R., Whiting, C., Bunn, P., Fraser, J. A., Charlson, J. H., & Pirola-Merlo, A. (2004). Measurement of cruelty in children: The cruelty to animals' inventory. *Journal of Abnormal Child Psychology*, 32(3), 321–334. <https://doi.org/10.1023/b:jacp.0000026145.69556.d9>
- Davies, P. T., Myers, R. L., Cummings, E. M., & Heindel, S. (1999). Adult conflict history and children's subsequent responses to conflict: An experimental test. *Journal of Family Psychology*, 13(4), 610–628. <https://doi.org/10.1037/0893-3200.13.4.610>
- DeGrave, J. (1999). People and animals learning: The PAL program. In F. Ascione & P. Arkow (Eds.), *Child abuse, domestic violence, and animal abuse* (pp. 410 – 423). Purdue University Press.
- DeGue, S., & DiLillo, D. (2009). Is animal cruelty a “red flag” for family violence? *Journal of Interpersonal Violence*, 24(6), 1036–1056. <https://doi.org/10.1177/0886260508319362>
- Dollard, J., & Miller, N. (1950). *Personality and psychotherapy*. McGraw-Hill.
- Duncan, A., Thomas, J. C., & Miller, C. (2005). Significance of family risk factors in development of childhood animal cruelty in adolescent boys with conduct problems. *Journal of Family Violence*, 20(4), 235–239. <https://doi.org/10.1007/s10896-005-5987-9>

- Eckardt Erlanger, A. C., & Tsytarev, S. V. (2012). the relationship between empathy and personality in undergraduate students' attitudes toward nonhuman animals. *Society & Animals*, 20(1), 21–38. <https://doi.org/10.1163/156853012x614341>
- Faver, C. A. (2010). School-based humane education as a strategy to prevent violence: Review and recommendations. *Children and Youth Services Review*, 32(3), 365–370. <https://doi.org/10.1016/j.childyouth.2009.10.006>
- Felthous, A. R., & Kellert, S. R. (1986). Violence against animals and people: Is aggression against living creatures generalized? *The Journal of the American Academy of Psychiatry and the Law*, 14(1), 55.
- Festinger, L. (1954). A Theory of Social Comparison Processes. *Human Relations*, 7(2), 117–140. <https://doi.org/10.1177/001872675400700202>
- Fielding, W. J., & Plumridge, S. J. (2010). The association between pet care and deviant household behaviors in an Afro-Caribbean, college student community in New Providence, The Bahamas. *Anthrozoös*, 23(1), 69–78. <https://doi.org/10.2752/175303710x12627079939224>
- Fine, A. H. (2010). *Handbook on animal-assisted therapy: Theoretical foundations and guidelines for practice*. Elsevier Science & Technology.
- Finsen, L., & Finsen, S. (1994). *The animal rights movement in America: From compassion to respect (social movements past and present series)* (1st ed.). Twayne Pub.
- Flynn, C. (2001). Acknowledging the “zoological connection”: A sociological analysis of animal cruelty. *Society & Animals*, 9(1), 71–87. <https://doi.org/10.1163/156853001300109008>
- Flynn, C. (2012b). *Understanding Animal Abuse: A Sociological Analysis*. Lantern Books.
- Flynn, C. P. (1999a). Animal abuse in childhood and later support for interpersonal violence in families. *Society & Animals*, 7(2), 161–172. <https://doi.org/10.1163/156853099x00059>

- Flynn, C. P. (1999b). Exploring the link between corporal punishment and children's cruelty to animals. *Journal of Marriage and the Family*, 61(4), 971. <https://doi.org/10.2307/354017>
- Flynn, C. P. (2000a). Why family professionals can no longer ignore violence toward animals. *Family Relations*, 49(1), 87–95. <https://doi.org/10.1111/j.1741-3729.2000.00087.x>
- Flynn, C. P. (2000b). Woman's best friend. *Violence Against Women*, 6(2), 162–177. <https://doi.org/10.1177/10778010022181778>
- Flynn, C. P. (2011). Examining the links between animal abuse and human violence. *Crime, Law and Social Change*, 55(5), 453–468. <https://doi.org/10.1007/s10611-011-9297-2>
- Frick, P. J., & Dickens, C. (2006). Current perspectives on conduct disorder. *Current Psychiatry Reports*, 8(1), 59–72. <https://doi.org/10.1007/s11920-006-0082-3>
- Frick, P. J., Kimonis, E. R., Dandreaux, D. M., & Farell, J. M. (2003). The 4 year stability of psychopathic traits in non-referred youth. *Behavioral Sciences & the Law*, 21(6), 713–736. <https://doi.org/10.1002/bsl.568>
- Frick, P. J., Lahey, B. B., Loeber, R., Tannenbaum, L., van Horn, Y., Christ, M. A. G., Hart, E. A., & Hanson, K. (1993). Oppositional defiant disorder and conduct disorder: A meta-analytic review of factor analyses and cross-validation in a clinic sample. *Clinical Psychology Review*, 13(4), 319–340. [https://doi.org/10.1016/0272-7358\(93\)90016-f](https://doi.org/10.1016/0272-7358(93)90016-f)
- Galal, Y. S., Emadeldin, M., & Mwafy, M. A. (2019). Prevalence and correlates of bullying and victimization among school students in rural Egypt. *Journal of the Egyptian Public Health Association*, 94(1), 1–12. <https://doi.org/10.1186/s42506-019-0019-4>
- Gleyzer, R., Felthous, A. R., & Holzer, C. E. (2002). Animal abuse and psychiatric disorders. *Journal of the American Academy of Psychiatry & the Law*, 30(2), 257–265.
- Gullone, E. (2012). *Animal abuse, antisocial behavior and aggression: More than a link*. Palgrave Macmillan.

- Gullone, E., & Robertson, N. (2008). The relationship between bullying and animal abuse behaviors in adolescents: The importance of witnessing animal abuse. *Journal of Applied Developmental Psychology*, 29(5), 371–379.  
<https://doi.org/10.1016/j.appdev.2008.06.004>
- Gullone. (2014a). An evaluative review of theories related to animal cruelty. *Journal of Animal Ethics*, 4(1), 37. <https://doi.org/10.5406/janimalethics.4.1.0037>
- Gullone. (2014b). Risk factors for the development of animal cruelty. *Journal of Animal Ethics*, 4(2), 61. <https://doi.org/10.5406/janimalethics.4.2.0061>
- Gupta, M. (2008). Functional links between intimate partner violence and animal abuse: Personality features and representations of aggression. *Society & Animals*, 16(3), 223–242. <https://doi.org/10.1163/156853008x323385>
- Gupta, M., & Beach, S. R. H. (2001). *Aggression toward animals' scale* [Unpublished scale]. University of Georgia.
- Hagelin, J., Carlsson, H. E., & Hau, J. (2003). An overview of surveys on how people view animal experimentation: Some factors that may influence the outcome. *Public Understanding of Science*, 12(1), 67–81. <https://doi.org/10.1177/0963662503012001247>
- Hastings, P. D., Zahn-Waxler, C., Robinson, J., Usher, B., & Bridges, D. (2000). The development of concern for others in children with behavior problems. *Developmental Psychology*, 36(5), 531–546. <https://doi.org/10.1037/0012-1649.36.5.531>
- Henry, B. C. (2004a). Exposure to animal abuse and group context: two factors affecting participation in animal abuse. *Anthrozoös*, 17(4), 290–305.  
<https://doi.org/10.2752/089279304785643195>

- Henry, B. C. (2004b). The relationship between animal cruelty, delinquency, and attitudes toward the treatment of animals. *Society & Animals*, 12(3), 185–207.  
<https://doi.org/10.1163/1568530042880677>
- Henry, B., & Sanders, C. (2007). Bullying and animal abuse: is there a connection? *Society & Animals*, 15(2), 107–126. <https://doi.org/10.1163/156853007x187081>
- Hensley, C., Tallichet, S. E., & Dutkiewicz, E. L. (2009). Recurrent childhood animal cruelty: Is there a relationship to adult recurrent interpersonal violence? *Criminal Justice Review*, 34(2), 248–257. <https://doi.org/10.1177/0734016808325062>
- Herpertz, S. C., & Sass, H. (2000). Emotional deficiency and psychopathy. *Behavioral Sciences & the Law*, 18(5), 567–580. [https://doi.org/10.1002/1099-0798\(200010\)18:5<567::AID-BSL410>3.0.CO;2-8](https://doi.org/10.1002/1099-0798(200010)18:5<567::AID-BSL410>3.0.CO;2-8)
- Herzog, H. A. (2007). Gender differences in human-animal interactions: A review. *Anthrozoös*, 20(1), 7–21. <https://doi.org/10.2752/089279307780216687>
- Huesmann, L. R., & Guerra, N. G. (1997). Children's normative beliefs about aggression and aggressive behavior. *Journal of Personality and Social Psychology*, 72(2), 408–419.  
<https://doi.org/10.1037/0022-3514.72.2.408>
- Hutton, J. S. (1998). Animal abuse as a diagnostic approach in social work: A pilot study. In R. Lockwood & F. R. Ascione (Eds.), *Cruelty to animals and interpersonal violence: Readings in research and application* (pp. 415–420). Purdue University Press.
- Jones, S., Brush, K., Bailey, R., Brion-Meisels, G., McIntyre, J., Kahn, J., & Stickle, L. (2017). *Navigating SEL from the inside out. looking inside and across 25 leading SEL programs: a practical resource for schools and OST providers*. Harvard Graduate School of Education. <https://www.wallacefoundation.org/knowledge-center/pages/navigating-social-and-emotional-learning-from-the-inside-out.aspx>

- Jory, B., Randour, M. L., Sasser, L., Psychologists for the Ethical Treatment of Animals, & Doris Day Animal Foundation. (1999). *The AniCare Model of Treatment for Animal Abuse*. Doris Day Animal Foundation and Psychologists for the Ethical Treatment of Animals.
- Kellert, S. R. (1993). Attitudes, knowledge, and behavior toward wildlife among the industrial superpowers: United States, Japan, and Germany. *Journal of Social Issues*, 49(1), 53–69. <https://doi.org/10.1111/j.1540-4560.1993.tb00908.x>
- Kellert, S. R., & Felthous, A. R. (1985). Childhood cruelty toward animals among criminals and noncriminals. *Human Relations*, 38(12), 1113–1129. <https://doi.org/10.1177/001872678503801202>
- Kidd, A. H., & Kidd, R. M. (1997). Characteristics and motives of adolescent volunteers in wildlife education. *Psychological Reports*, 80(3), 747–753. <https://doi.org/10.2466/pr0.1997.80.3.747>
- Lacroix, C. A. (1999). Another weapon for combating family violence: Prevention of animal abuse. In F. R. Ascione & P. Arkow (Eds.), *Child abuse, domestic violence and animal abuse: Linking the circles of compassion for prevention and intervention* (pp. 62-80). Purdue University Press.
- Lahey, B. B., Waldman, I. D., & McBurnett, K. (1999). Annotation: The development of antisocial behavior: An integrative causal model. *Journal of Child Psychology and Psychiatry*, 40(5), 669–682. <https://doi.org/10.1111/1469-7610.00484>
- Levinthal, J. (2010). *The Community Context of animal and human Maltreatment: Is there a relationship between animal Maltreatment and human Maltreatment: Does Neighborhood Context Matter?* [Doctoral dissertation, University of Pennsylvania].

Publicly Accessible Penn Dissertations. 274.

<https://repository.upenn.edu/edissertations/274/>

Levitt, L., Hoffer, T. A., & Loper, A. B. (2016). Criminal histories of a subsample of animal cruelty offenders. *Aggression and Violent Behavior, 30*, 48–58.

<https://doi.org/10.1016/j.avb.2016.05.002>

Loeber, R., & Hay, D. (1997). Key issues in the development of aggression and violence from childhood to early adulthood. *Annual Review of Psychology, 48*(1), 371–410.

<https://doi.org/10.1146/annurev.psych.48.1.371>

Luk, E. S. L., Staiger, P. K., Wong, L., & Mathai, J. (1999). Children who are cruel to animals: A revisit. *Australian & New Zealand Journal of Psychiatry, 33*(1), 29–36.

<https://doi.org/10.1046/j.1440-1614.1999.00528.x>

Luke, B. (2007). *Brutal: Manhood and the Exploitation of Animals* (Illustrated ed.). University of Illinois Press.

Luke, C., & Arluke, A. (1997). Physical cruelty toward animals in Massachusetts, 1975–1996. *Society & Animals, 5*(3), 195–204. <https://doi.org/10.1163/156853097x00123>

MacDonald, J. M. (1961). *The Murderer and His Victim*. C. C. Thomas.

Mansour, K., Roshdy, E., & Daoud, O. (2010). Child abuse and its long-term consequences: An exploratory study on Egyptian university students. *The Arab Journal of Psychiatry, 44*(2299), 1-54.

Marcus-Newhall, A., Pedersen, W. C., Carlson, M., & Miller, N. (2000). Displaced aggression is alive and well: A meta-analytic review. *Journal of Personality and Social Psychology, 78*(4), 670–689. <https://doi.org/10.1037/0022-3514.78.4.670>

McCoy, K., Fremouw, W., Tyner, E., Clegg, C., Johansson-Love, J., & Strunk, J. (2006).

Criminal-thinking styles and illegal behavior among college students: Validation of the



- PICTS. *Journal of Forensic Sciences*, 51(5), 1174–1177. <https://doi.org/10.1111/j.1556-4029.2006.00216.x>
- McPhedran, S. (2009). A review of the evidence for associations between empathy, violence, and animal cruelty. *Aggression and Violent Behavior*, 14(1), 1–4. <https://doi.org/10.1016/j.avb.2008.07.005>
- Mellor, D., Yeow, J., Hapidzal, N. F. M., Yamamoto, T., Yokoyama, A., & Nobuzane, Y. (2009). Childhood cruelty to animals: A tri-national study. *Child Psychiatry and Human Development*, 40(4), 527–541. <https://doi.org/10.1007/s10578-009-0142-0>
- Mellor, D., Yeow, J., Mamat, N. H. B., & Hapidzal, N. F. B. M. (2008). The relationship between childhood cruelty to animals and psychological adjustment: A Malaysian study. *Anthrozoös*, 21(4), 363–374. <https://doi.org/10.2752/175303708x371582>
- Menor-Campos, D. J., Hawkins, R., & Williams, J. (2018). Belief in animal mind among Spanish primary school children. *Anthrozoös*, 31(5), 599–614. <https://doi.org/10.1080/08927936.2018.1505340>
- Mensch, B. S., Ibrahim, B. L., Lee, S. M., & El-Gibaly, O. (2003). Gender-role Attitudes among Egyptian Adolescents. *Studies in Family Planning*, 34(1), 8–18. <https://doi.org/10.1111/j.1728-4465.2003.00008.x>
- Merz-Perez, L., & Heide, K. M. (2004). *Animal abuse: Pathway to violence against people*. Rowman Altamira.
- Merz-Perez, L., Heide, K. M., & Silverman, I. J. (2001). Childhood cruelty to animals and subsequent violence against humans. *International Journal of Offender Therapy and Comparative Criminology*, 45(5), 556–573. <https://doi.org/10.1177/0306624X01455003>

- Miller, K. S., & Knutson, J. F. (1997). Reports of severe physical punishment and exposure to animal cruelty by inmates convicted of felonies and by university students. *Child Abuse & Neglect*, 21(1), 59-82. [https://doi.org/10.1016/S0145-2134\(96\)00131-7](https://doi.org/10.1016/S0145-2134(96)00131-7)
- Morris, P., Knight, S., & Lesley, S. (2012). Belief in animal mind: Does familiarity with animals influence beliefs about animal emotions? *Society & Animals*, 20(3), 211–224. <https://doi.org/10.1163/15685306-12341234>
- Mowen, T. J., & Boman IV, J. H. (2020). Animal abuse among high-risk youth: A test of Agnew's theory. *Deviant Behavior*, 41(6), 765-778. <https://doi.org/10.1080/01639625.2019.1595373>
- Munro, L., & Beaumont, M. (2005). *Confronting cruelty: Moral orthodoxy and the challenge of the animal rights movement*. BRILL.
- Paul, E. S. (2000). Empathy with animals and with humans: Are they linked? *Anthrozoös*, 13(4), 194–202. <https://doi.org/10.2752/089279300786999699>
- Phillips, C. J. C., & McCulloch, S. (2005). Student attitudes on animal sentience and use of animals in society. *Journal of Biological Education*, 40(1), 17–24. <https://doi.org/10.1080/00219266.2005.9656004>
- Pifer, R., Shimizu, K., & Pifer, L. (1994). Public attitudes toward animal research: Some international comparisons. *Society & Animals*, 2(2), 95–113. <https://doi.org/10.1163/156853094x00126>
- Pifer, R., Shimizu, K., & Pifer, L. (1994). Public attitudes toward animal research: Some international comparisons. *Society & Animals*, 2(2), 95–113. <https://doi.org/10.1163/156853094x00126>

- Rathman, C. (1999). Forget me not farm: Teaching gentleness with gardens and animals to children from violent homes and communities. In F. Ascione & P. Arkow (Eds.), *Child abuse, domestic violence, and animal abuse* (pp. 393 – 409). Purdue University Press.
- Salmanian, M., Asadian-koohestani, F., & Mohammadi, M. R. (2017). A systematic review on the prevalence of conduct disorder in the Middle East. *Social Psychiatry and Psychiatric Epidemiology*, 52(11), 1337–1343. <https://doi.org/10.1007/s00127-017-1414-9>
- Samuels, W. E., Meers, L. L., & Normando, S. (2016). Improving Upper Elementary Students' Humane Attitudes and Prosocial Behaviors through an In-class Humane Education Program. *Anthrozoös*, 29(4), 597–610. <https://doi.org/10.1080/08927936.2016.1228751>
- Signal, T. D., & Taylor, N. (2007). Attitude to animals and empathy: Comparing animal protection and general community samples. *Anthrozoös*, 20(2), 125–130. <https://doi.org/10.2752/175303707x207918>
- Simmons, C. A., & Lehmann, P. (2007). Exploring the link between pet abuse and controlling behaviors in violent relationships. *Journal of Interpersonal Violence*, 22(9), 1211–1222. <https://doi.org/10.1177/0886260507303734>
- Society for the Protection of Animal Rights in Egypt. (n.d.). *Animal Abuse*. [http://www.sparelives.org/index.pl/animal\\_abuse](http://www.sparelives.org/index.pl/animal_abuse)
- Sprinkle, J. E. (2008). Animals, empathy, and violence. *Youth Violence and Juvenile Justice*, 6(1), 47–58. <https://doi.org/10.1177/1541204007305525>
- Straus, M. A. (1991). Discipline and deviance: Physical punishment of children and violence and other crime in adulthood. *Social Problems*, 38(2), 133–154. <https://doi.org/10.2307/800524>
- Straus, M. A., & Donnelly, D. A. (1994). *Beating the Devil Out of Them: Corporal Punishment in American Families*. Lexington Books.

- Sykes, G. M., & Matza, D. (1957). Techniques of neutralization: A theory of delinquency. *American Sociological Review*, 22(6), 664-670. <https://doi.org/10.2307/2089195>
- Szűcs, E., Geers, R., Jezierski, T., Sossidou, E. N., & Broom, D. M. (2012). Animal Welfare in Different Human Cultures, Traditions and Religious Faiths. *Asian-Australasian Journal of Animal Sciences*, 25(11), 1499–1506. <https://doi.org/10.5713/ajas.2012.r.02>
- Tallichet, S. E., & Hensley, C. (2004). Exploring the link between recurrent acts of childhood and adolescent animal cruelty and subsequent violent crime. *Criminal Justice Review*, 29(2), 304–316. <https://doi.org/10.1177/073401680402900203>
- Tapia, F. (1971). Children who are cruel to animals. *Child Psychiatry and Human Development*, 2(2), 70–77. <https://doi.org/10.1007/bf01434639>
- Taylor, N., & Signal, T. (2005). Empathy and attitudes to animals. *Anthrozoös*, 18(1), 18–27. <https://doi.org/10.2752/089279305785594342>
- Thompson, C. B. (2001). *Compassion education program: Creating a society of character*. The Healing Species.
- Thompson, K. L., & Gullone, E. (2003). Promotion of empathy and prosocial behavior in children through humane education. *Australian Psychologist*, 38(3), 175-182. <https://doi.org/10.1080/00050060310001707187>
- Thompson, K., & Gullone, E. (2006). An investigation into the association between the witnessing of animal abuse and adolescents' behavior toward animals. *Society & Animals*, 14(3), 221–243. <https://doi.org/10.1163/156853006778149163>
- Tingle, D., Barnard, G. W., Robbins, L., Newman, G., & Hutchinson, D. (1986). Childhood and adolescent characteristics of pedophiles and rapists. *International Journal of Law and Psychiatry*, 9(1), 103–116. [https://doi.org/10.1016/0160-2527\(86\)90020-8](https://doi.org/10.1016/0160-2527(86)90020-8)

- Vermeulen, H., & Odendaal, J. S. (1993). Proposed typology of companion animal abuse. *Anthrozoös*, 6(4), 248–257. <https://doi.org/10.2752/089279393787002178>
- Volant, A. M., Johnson, J. A., Gullone, E., & Coleman, G. J. (2008). The relationship between domestic violence and animal abuse. *Journal of Interpersonal Violence*, 23(9), 1277–1295. <https://doi.org/10.1177/0886260508314309>
- Walsh, D. (2019, April 13). At Egypt's tourism gems, animal abuse is an ugly flaw. *The New York Times*. <https://www.nytimes.com/2019/04/13/world/middleeast/egypt-pyramids-animal-abuse.html>
- Widom, C. S. (1989). Does violence beget violence? A critical examination of the literature. *Psychological Bulletin*, 106(1), 3–28. <https://doi.org/10.1037/0033-2909.106.1.3>
- World Animal Protection. (2020). Animal Protection Index 2020 – Arab Republic of Egypt. <https://api.worldanimalprotection.org/country/egypt>
- Wright, J., & Hensley, C. (2003). From animal cruelty to serial murder: Applying the graduation hypothesis. *International Journal of Offender Therapy and Comparative Criminology*, 47(1), 71–88. <https://doi.org/10.1177/0306624x02239276>
- Yaya, S., Hudani, A., Buh, A., & Bishwajit, G. (2019). Prevalence and predictors of intimate partner violence among married women in Egypt. *Journal of Interpersonal Violence*, 36(21-22), 1-19. <https://doi.org/10.1177/0886260519888196>
- Zahn-Waxler, C., & Radke-Yarrow, M. (1990). The origins of empathic concern. *Motivation and Emotion*, 14(2), 107–130. <https://doi.org/10.1007/bf00991639>

## Appendices

### Appendix A: English Consent Forms



#### **Documentation of Informed Consent for Participation in Research Study**

**Project Title:** Assessing Protective Factors Against Animal Abuse Among Egyptian University Students

**Principal Investigator:** Salma El Saedy

**Email:** salma.elsaedy@aucegypt.edu

You are being asked to participate in a research study. The purpose of the research is to explore attitudes and behaviors towards animals in the Egyptian society and the findings may be published and presented. The expected duration of your participation is forty-five minutes.

The procedures of the research will be as follows: You will be asked to answer interview questions about your experiences with and attitudes toward animals. The interview will be held via Zoom platform on an agreed upon date and time. The audio and video of the interview will be recorded for later analysis by the researcher.

There are no risks or discomforts associated with this research. The research may benefit you by giving you an opportunity to reflect on your experience with and attitudes toward animals. Your participation will contribute to our understanding of views toward animals in Egypt.

The information you provide for the purposes of this research is confidential. You will not be identified in any description or publication of this research. Only the researchers will have access to the interview questions responses which will be kept in a password protected file.

Any questions or inquiries about the research should be directed to Salma El Saedy (the primary investigator) at salma.elsaedy@aucegypt.edu.

Participation in this study is voluntary. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue participation at any time without penalty or the loss of benefits to which you are otherwise entitled.

**I have read the above-mentioned information and had the chance to ask questions. I consent to participate in this interview voluntarily.**

Signature:

Date:



### **Documentation of Informed Consent for Participation in Research Study**

**Project Title:** Assessing Protective Factors Against Animal Abuse Among Egyptian University Students

**Principal Investigator:** Salma El Saedy / salma.elsaedy@aucegypt.edu

You are being asked to participate in a research study. The purpose of the research is to explore attitudes and behaviors towards animals in the Egyptian society, and the findings may be published and presented. The expected duration of your participation is twenty minutes.

The procedures of the research will be as follows: You will be asked to answer survey questions about your experiences with and attitudes toward animals.

At the end of the survey you will be asked if you are willing to participate in an online or phone interview that will be held on another date via Zoom platform. If you agree, then you will be asked to provide your contact information. If you proceed with the survey, you can choose not to do the interview and thus not provide your contact information.

There are no risks or discomforts associated with this research. The research may benefit you by giving you an opportunity to reflect on your experience with and attitudes toward animals. Your participation will contribute to our understanding of views toward animals in Egypt.

The information you provide for purposes of this research is confidential. You will not be identified in any description or publication of this research. Only the researchers will have access to the survey responses which will be kept in a password protected file.

Any questions or inquiries about the research should be directed to Salma El Saedy (the primary investigator) at salma.elsaedy@aucegypt.edu.

Participation in this study is voluntary. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue participation at any time without penalty or the loss of benefits to which you are otherwise entitled.

Please click on "consent" to indicate your agreement to participate in this survey.

## Appendix B: Arabic Consent Forms

## الجامعة الأمريكية بالقاهرة

### استمارة موافقة مسبقة للمشاركة في دراسة بحثية

عنوان البحث : تقييم عوامل الحماية ضد الإساءة للحيوان بين طلاب الجامعات المصرية

الباحث الرئيسي: سلمى الصعيدي

البريد الإلكتروني: salma.elsaedy@aucegypt.edu

أنت مدعو للمشاركة في دراسة بحثية الغرض منها إستكشاف السلوكيات والمواقف تجاه الحيوانات في المجتمع المصري. يُحتمل نشر نتائج الدراسة أو عرضها في دورية متخصصة أو مؤتمر علمي أو كليهما.

المدة المتوقعة لمشاركتك هي عشرون دقيقة.

سوف يُطلب منك الإجابة علي أسئلة الإستبيان حول تجاربك ومواقفك تجاه الحيوانات.

في نهاية الإستبيان، سيتم سؤالك عما إذا كنت على إستعداد للمشاركة في مقابلة (إنترفيو) عبر الإنترنت أو عبر الهاتف والتي ستُعقد في تاريخ آخر عبر منصة Zoom . إذا وافقت، فسيُطلب منك تقديم معلومات عن كيفية التواصل معك . إذا تابعت الإستبيان ، يمكنك إختيار عدم إجراء المقابلة وبالتالي عدم تقديم معلومات الإتصال الخاصة بك.

لا توجد أي مخاطر أو مضايقات مرتبطة بهذا البحث. قد يكون البحث مفيد بالنسبة لك من ناحية أنه يعطيك فرصة للتفكير في تجربتك مع الحيوانات ومواقفك تجاهها. ستساهم مشاركتك في هذا البحث في فهمنا لوجهات النظر تجاه الحيوانات في مصر.

المعلومات التي ستُدلي بها لأغراض هذا البحث هي معلومات سرية. لن يتم تحديد هويتك في أي وصف أو نشر لهذا البحث. ولن يتمكن سوى الباحثين من الوصول إلى إجابات الإستبيان والتي سيتم حفظها في ملف تحت حماية كلمة مرور.

يجب توجيه أي أسئلة أو إستفسارات حول البحث إلى سلمى الصعيدي (الباحث الرئيسي) على  
salma.elsaedy@aucegypt.edu

إن المشاركة في هذه الدراسة ماهي إلا عمل تطوعي، حيث أن الإمتناع عن المشاركة لا يتضمن أي عقوبات أو فقدان أي مزايا تحقق لك. ويمكنك أيضاً التوقف عن المشاركة في أي وقت دون عقوبة أو فقدان لهذه المزايا.

برجاء الضغط على كلمة "موافق" للإشارة إلى موافقتك على المشاركة في هذا الإستبيان.



الجامعة الأمريكية بالقاهرة

## استمارة موافقة مسبقة للمشاركة في دراسة بحثية

عنوان البحث: تقييم عوامل الحماية ضد الإساءة للحيوان بين طلاب الجامعات المصرية

الباحث الرئيسي: سلمى الصعيدى

البريد الإلكتروني: salma.elsaedy@aucegypt.edu

أنت مدعو للمشاركة في دراسة بحثية الغرض منها إستكشاف السلوكيات والمواقف تجاه الحيوانات في المجتمع المصري. يُحتمل نشر نتائج الدراسة أو عرضها في دورية متخصصة أو مؤتمر علمي أو كليهما.

المدة المتوقعة لمشاركتك هي خمسة وأربعون دقيقة.

سوف يُطلب منك الإجابة على أسئلة المقابلة حول تجاربك ومواقفك تجاه الحيوانات. سيتم إجراء المقابلة عبر منصة Zoom في التاريخ والوقت المُتفق عليهما. سيتم تسجيل الصوت والفيديو للمقابلة لتحليلهما لاحقاً من قبل الباحث.

لا توجد أي مخاطر أو مضايقات مرتبطة بهذا البحث. قد يكون البحث مفيد بالنسبة لك من ناحية أنه يعطيك فرصة للتفكير في تجربتك مع الحيوانات ومواقفك تجاهها. ستساهم مشاركتك في هذا البحث في فهمنا لوجهات النظر تجاه الحيوانات في مصر.

المعلومات التي سَتُدلي بها لأغراض هذا البحث هي معلومات سرية بحيث لن يتم تحديد هويتك في أي وصف أو نشر لهذا البحث. ولن يتمكن سوى الباحثين من الوصول إلى إجابات المقابلة والتي سيتم حفظها في ملف تحت حماية كلمة مرور.

يجب توجيه أي أسئلة أو إستفسارات حول البحث إلى سلمى الصعيدى (الباحث الرئيسي) على

salma.elsaedy@aucegypt.edu

إن المشاركة في هذه الدراسة ماهي إلا عمل تطوعي، حيث أن الإمتناع عن المشاركة لا يتضمن أي عقوبات أو فقدان أي مزايا تحقق لك. ويمكنك أيضا التوقف عن المشاركة في أي وقت دون عقوبة أو فقدان لهذه المزايا.

لقد قرأت المعلومات المذكورة أعلاه وأُتيحت لي الفرصة لطرح الأسئلة. أوافق على المشاركة في هذه المقابلة طواعية.

الإمضاء:

التاريخ:

## Appendix C: English Survey

### Part 1: Beliefs about the use of animals in society

Gender: ☐ female ☐ male

Age:

Place of residence:

University/Institute name:

Type of University/Institute: ☐ Public ☐ Private

Field of Study:

Responses are 1 to 7, with 1 being 'disagree very strongly', 7 'agree very strongly' and 4 is neutral or no opinion. (Questions with \* will be reverse scored)

1. Transport of food animals, such as sheep or cattle, by road, involves little or no discomfort or cruelty\*
2. Many wild animals suffer considerably from stress and boredom, as a result of being kept in zoos
3. Keeping farm animals such as pigs and veal calves in small crates where they cannot even turn around is unacceptable
4. It is better to euthanize (kill by lethal injection) unwanted dogs than to keep them alive in shelters/kennels/refuges for the rest of their lives\*
5. It is acceptable to catch fish just for sport\*
6. It is wrong to kill animals for food when vegetarian diets are available
7. Surgically removing a cat's claws to stop it from scratching the furniture is acceptable\*
8. It is acceptable to test cosmetics/shampoos on animals, so that they will not harm humans\*
9. Traps which injure the animal but don't immediately kill it are unacceptable
10. It is wrong to use animals (e.g., rats, mice) for scientific research
11. The hunting of deer and foxes for sport is cruel and unnecessary
12. The educational and entertainment value of zoos is far more important than any cruelty that may be involved in holding wild animals captive\*
13. The fact that intensively farmed pigs grow well and produce large litters of piglets shows that they are clearly not suffering\*
14. As long as adequate food, warmth and light are provided, there is nothing really cruel about battery hen farming\*
15. Human beings are natural meat-eaters, so we shouldn't feel guilty about killing animals for food\*
16. In scientific research, the advancement of knowledge comes first, even if animal suffering is involved in the process\*

**Part 2: Experience with animals**

1. Do you currently own any pets?
  - i. Yes
  - ii. No
- a. (If yes) What is the level of attachment to the pet? 1 (“very strong attachment”) to 5 (“no attachment at all”).  
1 2 3 4 5
2. Have you ever witnessed an animal being slaughtered/ killed for food (for example during Eid-Al Adha)?
  - i. Yes
  - ii. No
- a. (if yes) At what age did you first observe that?
  - i. 2–5 years
  - ii. 6–12 years
  - iii. 13–18 years
  - iv. over 18 years
3. Have you ever witnessed an animal being killed (not including the killing of an animal for food)?
  - i. Yes
  - ii. No
4. Have you ever witnessed an animal being tortured?
  - i. Yes
  - ii. No
5. Had someone ever tried to control you by threatening or harming an animal?
  - i. Yes
  - ii. No

**For questions 3, 4 and 5 if the answer was yes, the following questions are asked:**

- a. What was the reason behind this act?.....
- b. At what age did you first observe that type of behavior?
  - i. 2–5 years
  - ii. 6–12 years
  - iii. 13–18 years
  - iv. over 18 years
- b. Who was the perpetrator of the act? (Check all that applies)
  - i. Father and/or Mother
  - ii. Sibling
  - iii. friends and peers
  - iv. others, please specify ....
- c. How did you feel about this act?
  - i. I was not bothered at all

- ii. I was somewhat bothered
  - iii. I was bothered a lot
6. Have you ever done any of the following to an animal you have a home (check all that applies)?
- i. Pull their tail or hair to torment them
  - ii. Kick them or beat them with your hand or a stick
  - iii. Throw stones at them
  - iv. Leave them without food or water
  - v. Leave them without shelter (in the heat or/and in the cold)
  - vi. Kick them out of the home to live in the streets
  - vii. I did other non-listed acts to an animal I have at home (please specify ....)
  - viii. No, I have never done anything to any animal I have at home before
  - ix. No, I do not have an animal at home

*Unless the answer is No, the following questions will be asked*

- a. What age did you first engage in any of these behaviors?
  - i. 2-5 years
  - ii. 6-12 years
  - iii. 3-18 years
  - iv. over 18 years
- b. What types of animals were involved? (Check all that applies)
  - i. Dogs
  - ii. Cats
  - iii. other small animals (rodents, birds, reptiles, poultry)
  - iv. large animals (horses, sheep, goats, cattle, donkey, pigs)
  - v. Other (please specify)
- c. How many times did you do any of those behaviors (if more than one behavior is selected, choose the combined number of times)?
  - i. Once
  - ii. twice
  - iii. 3 to 5
  - iv. 6 or more
- d. What were some of the reasons behind the act/acts?
 

.....
- d. Have you ever engaged in any of those acts alone (that is, with no other person present)?
  - i. Yes, I was alone
  - ii. No, I was with other people
- e..1. If (No) who were you involved with (check all that apply)
  - i. Parents
  - ii. Siblings
  - iii. Friends/peers
  - iv. Others, please specify.....

7. Have you ever done any of the following to an animal in the street (check all that applies)?

- i. Pull their tail or hair to cause them pain
- ii. Kick them or beat them with your hand or a stick
- iii. Throw stones at them
- iv. Deny them food or water
- v. I did other non-listed acts to an animal I have at home (please specify ....)
- vi. No, I have never done anything to any animal in the street.

*Unless the answer is No, the following questions will be asked*

- a. What age did you first engage in any of these behaviors?
    - i. 2-5 years
    - ii. 6-12 years
    - iii. 3-18 years
    - iv. over 18 years
  - b. What types of animals were involved? (Check all that applies)
    - i. Dogs
    - ii. Cats
    - iii. other small animals (rodents, birds, reptiles, poultry)
    - iv. large animals (horses, sheep, goats, cattle, donkey, pigs)
    - v. Other (please specify)
  - c. How many times did you do any of those behaviors (if more than one behavior is selected, choose the combined number of times)?
    - i. Once
    - ii. twice
    - iii. 3 to 5
    - iv. 6 or more
  - d. What were some of the reasons behind the act/acts?  
.....
  - e. Have you ever engaged in any of those acts alone (that is, with no other person present)?
    - i. Yes, I was alone
    - ii. No, I was with other people
  - e..1. If (No) who were you involved with (check all that apply)
    - i. Parents
    - ii. Siblings
    - iii. Friends/peers
    - iv. Others, please specify.....
8. Have you ever intentionally hurt an animal for the purpose of teasing it or causing pain?
- i. Yes
  - ii. No

*If the answer is yes, the following questions will be asked*

- a. What age did you first engage in that type of behavior?
  - i. 2-5 years

- ii. 6-12 years
  - iii. 3-18 years
  - iv. over 18 years
- b. What types of animals were involved?
  - i. Dogs
  - ii. Cats
  - iii. other small animals (rodents, birds, reptiles, poultry)
  - iv. large animals (horses, sheep, goats, cattle, donkey, pigs)
  - v. Other (please specify)
- c. How many incidents?
  - i. Once
  - ii. twice
  - iii. 3 to 5
  - iv. 6 or more
- d. What were some of the reasons behind the act?  
.....
- e. Have you ever engaged in that type of behavior alone (that is, with no other person present)?
  - i. Yes, I was alone
  - ii. No, I was with other people
- e.1. If (No) who were you involved with (check all that apply)
  - i. Parents
  - ii. Siblings
  - iii. Friends/peers
  - iv. Others, please specify.....
- 9. Have you ever intentionally killed any animal (pet, stray or wild animals)? (Check all that applies)
  - i. Yes, to help the animal because it was hurt, old, or sick
  - ii. Yes, to protect myself or other people
  - iii. Yes, I slaughtered an animal for food
  - iv. Yes, I slaughtered an animal during Eid-Al Adha as a religious ritual
  - v. Yes, to control against a rodent or insect infestation
  - vi. Yes, I killed an animal while hunting as a sport
  - vii. Yes, I killed an animal for fun or as an entertainment
  - viii. Yes, I killed an animal for another non-listed reason (please specify.....)
  - ix. No, I have never intentionally killed any animal

*For the answers (vii, viii) the following questions will be asked*
- a. What age did you first engage in any of these behaviors?
  - i. 2-5 years
  - ii. 6-12 years
  - iii. 3-18 years

- iv. over 18 years
- b. What types of animals were involved? (Check all that applies)
  - i. Dogs
  - ii. Cats
  - iii. other small animals (rodents, birds, reptiles, poultry)
  - iv. large animals (horses, sheep, goats, cattle, donkey, pigs)
  - v. Other (please specify)
- c. How many incidents were you involved in?
  - i. Once
  - ii. Twice
  - iii. 3 to 5
  - iv. 6 or more
- d. What were some of the reasons behind the act/acts?  
.....
- e. Have you ever engaged in that type of behavior alone (that is, with no other person present)?
  - i. Yes, I was alone
  - iii. No, I was with other people
- d.1. If (No) who were you involved with (check all that apply)
  - i. Parents
  - ii. Siblings
  - iii. Friends/peers
  - iv. Others, please specify.....

Thank you!

## **Appendix D: Semi-structured Interview**

### **Semi-structured Interview Questions**

1. Describe your own interactions with animals (pets, stray, farm animals, rodents...)?
2. What are your thoughts regarding the following practices?
  - a. Abandoning pet animals in the street
  - b. Organizing dog fights
  - c. Poisoning stray animals
  - d. Slaughtering brutality
  - e. Having bred dogs versus adopting from shelters
  - f. Donating to shelters for rescued animals
3. What reasons might drive you to be (cruel/not cruel to animals)?
4. How do you describe your religion's stance on treating animals?
  - a. Do you abide by the teachings?
5. How would you describe your parents' interactions with animals?
6. How would you describe your peers/ friends' interaction with animals? (in case of abuse, have you ever been influenced by them to join such actions?)
7. What do you think of the following statement "animals can feel emotions such as joy, fear, pleasure and pain"?
8. Do you think that animals are worthy of the same level of empathy and compassion as humans?
9. Do you think that some animals deserve harsher treatment than others (ex. dog vs cat, pigs, rats?)
10. Are you aware of any animal protection laws in Egypt?
  - a. Do you think that any person that harms or kills an animal (other than for food or euthanasia) should face trouble with the law?



## Appendix E: Arabic Survey

## إستبيان طلبة الجامعات

النوع: ذكر أنثى  
 السن:  
 مكان الإقامة:  
 إسم الجامعة/المعهد:  
 نوع الجامعة/المعهد: حكومي خاص  
 مجال الدراسة:

## A. معتقدات حول استخدام الحيوانات في المجتمع

- الإجابات من 1 إلى 7، حيث يشير 1 إلى "لا أوافق بشدة"، و 7 "أوافق بشدة" و 4 يمثل رأياً محايداً أو لا رأي.  
 (الأسئلة التي عليها علامة \* سيتم عكس الدرجة الخاصة بها)
1. لا يُسبب نقل الحيوانات الغذائية (مثل الأغنام أو الماشية) عن طريق البر أي نوع من الانزعاج أو القسوة لهذه الحيوانات.\*
  2. تُعاني العديد من الحيوانات البرية من الإجهاد والملل بشكل كبير نتيجة لوجودها في حدائق الحيوان.
  3. من غير المقبول الاحتفاظ بحيوانات المزرعة مثل الغنم والعجول في أقفاص صغيرة تمنعها حتى من الالتفاف.
  4. من الأفضل قتل الكلاب غير المرغوب فيها (بالسم أو رمياً بالرصاص) بدلاً من تركها على قيد الحياة في الملاجئ المخصصة للكلاب لبقية حياتهم.\*
  5. من المقبول صيد الأسماك كمجرد رياضة.\*
  6. من الخطأ قتل الحيوانات من أجل الغذاء عندما تتوفر وجبات نباتية.
  7. من المقبول إزالة مخالب القط جراحياً لمنعه من خدش الأثاث.\*
  8. من المقبول اعتبار مستحضرات التجميل / الشامبو على الحيوانات حتى لا تؤذي البشر.\*
  9. الفخ الذي يجرح الحيوان، ولكن لا يقتله على الفور غير مقبول.
  10. من الخطأ استخدام الحيوانات (مثل الفئران) في الأبحاث العلمية.
  11. صيد الغزلان والثعالب كنوع من ممارسة الرياضة أمر وحشي وغير ضروري.
  12. تعتبر القيمة التعليمية والترفيهية لحدائق الحيوان أكثر أهمية من أي قسوة مرتبطة بإبقاء الحيوانات البرية أسيرة.\*
  13. إن حقيقة أن العجول التي يتم تربيتها عن طريق مزارع/مصانع التسمين تنمو بشكل جيد وتنتج صغاراً كثيرة يعتبر دلالة على أنها لا تعاني.\*
  14. طالما يتم توفير الغذاء والدفع والضوء الكافيين، لا توجد قسوة في تربية الدجاج داخل أقفاص (بطاريات التسمين).\*
  15. يعتبر البشر من أكل اللحوم بصفة طبيعية، لذلك لا ينبغي أن نشعر بالذنب لقتل الحيوانات من أجل الغذاء.\*
  16. في البحث العلمي، تأتي أهمية تقدم المعرفة أولاً، حتى لو كانت علي حساب معاناة الحيوانات.\*

## B. التجارب الشخصية مع الحيوانات

1. هل تمتلك حالياً أي حيوانات أليفة؟  
 أ. (إذا كانت الإجابة بنعم) ما هو مستوى الارتباط بالحيوان الأليف؟  
 1 (”إرتباط قوي جداً“) إلى 5 (”لا يوجد إرتباط على الإطلاق“).  
 2. هل سبق لك أن شاهدت حيواناً يُذبح /يقتل من أجل الطعام (مثلاً خلال عيد الأضحى)؟  
 نعم  
 لا  
 أ. (إذا كانت الإجابة بنعم) في أي عمر شاهدت ذلك لأول مرة؟  
 i. 2-5 سنوات  
 ii. 6-12 سنة  
 iii. 13-18 سنة

- iv. فوق 18 سنة
3. هل سبق لك أن شاهدت حيوانًا يُقتل (هذا لا يشمل علي قتل حيوان من أجل الطعام)؟  
 ○ نعم  
 ○ لا
4. هل سبق لك أن شاهدت حيوان يتم تعذيبه؟  
 ○ نعم  
 ○ لا
5. هل حاول شخص ما السيطرة عليك من خلال تهديد حيوان أو إيذائه؟  
 i. نعم  
 ii. لا
- إذا كانت الإجابة بنعم للأسئلة 3، 4 و5 تطرح الأسئلة التالية:
- أ. ما السبب وراء هذا الفعل؟ .....
- ب. في أي عمر شاهدت هذا النوع من السلوك لأول مرة؟  
 i. 2-5 سنوات  
 ii. 6-12 سنة  
 iii. 13-18 سنة  
 iv. أكثر من 18 عامًا
- ت. من قام بهذا الفعل؟ (إختار كل ما ينطبق عليه)  
 i. الأب أو/و الأم  
 ii. أحد الأخوات  
 iii. أحد الأصدقاء أو الأقران  
 iv. آخرين، برجااء التحديد .....
- ج. ماذا كان إحساسك تجاه هذا الفعل؟  
 i. لم أنزعج على الإطلاق  
 ii. بعض الإنزعاج  
 iii. إنزعجت كثيرا
6. هل سبق لك أن فعلت أيًا من التالي لحيوان لديك في المنزل (إختار كل ما ينطبق)؟  
 i. شديت ذيلهم أو شعرهم لمضايقتهم  
 ii. ركلتهم أو ضربتهم بيدك أو بعصا  
 iii. رميت الحجارة عليهم  
 iv. تركتهم بدون طعام أو ماء  
 v. تركتهم بدون مأوى (مثلا علي سطح المنزل في الحرارة أو في البرد)  
 vi. طردتهم من المنزل ليعيشوا في الشوارع  
 vii. قمت بأعمال أخرى غير المذكورة لحيوان لديك في المنزل (يرجى التحديد ...)  
 viii. لا ، لم أفعل أي شيء لأي حيوان لدي في المنزل من قبل  
 ix. لا ، ليس لدي حيوان في المنزل
- ما لم تكن الإجابة لا ، سيتم طرح الأسئلة التالية
- أ. ما هو العمر الذي قمت فيه بأي من هذه الأفعال لأول مرة؟  
 i. 2-5 سنوات  
 ii. 6-12 سنة  
 iii. 13-18 سنة

- iv. أكثر من 18 عامًا
- ب. ما هي أنواع الحيوانات المستهدفة؟ (إختار كل ما ينطبق)
- كلاب
  - قطط
  - حيوانات الصغيرة الأخرى (الفئران والطيور والزواحف والدواجن)
  - حيوانات الكبيرة (الخيول والأغنام والماعز والأبقار والحمير والخنازير)
  - أخرى (يرجى التحديد)
- ث. كم مرة قمت فيها بأي من هذه الأفعال (إذا تم تحديد أكثر من فعل واحد ، فاختر العدد الإجمالي من المرات)؟
- مرة واحدة
  - مرتين
  - 3 إلى 5
  - 6 أو أكثر
- ج. ما هي بعض الأسباب وراء الفعل / الأفعال؟
- .....
- ح. هل سبق لك أن قمت بأي من هذه الأفعال بمفردك (أي بدون وجود أي شخص آخر)؟
- نعم ، كنت وحدي
  - لا ، كنت مع أشخاص آخرين
- ح. 1. إذا (لا) من كان معك (حدد كل ما ينطبق)
- الأب أو/و الأم
  - أخوة أو أخوات
  - الأصدقاء / الأقران
  - أخرى ، يرجى التحديد .....
7. هل سبق لك أن فعلت أيًا من التالي لحيوان في الشارع (إختار كل ما ينطبق)؟
- شدت ذيلهم أو شعرهم لمضايقتهم
  - ركلتهم أو ضربتهم بيديك أو بعصا
  - رميت الحجارة عليهم
  - منعت عنهم الطعام أو الماء
  - قمت بأعمال أخرى غير المذكورة لحيوان في الشارع (يرجى التحديد ...)
  - لا ، لم أفعل أي شيء لأي حيوان في الشارع من قبل
- ما لم تكن الإجابة لا ، سيتم طرح الأسئلة التالية
- أ. ما هو العمر الذي قمت فيه بأي من هذه الأفعال لأول مرة؟
- 2-5 سنوات
  - 6-12 سنة
  - 18-3 سنة
  - أكثر من 18 عامًا
- ب. ما هي أنواع الحيوانات المستهدفة؟ (إختار كل ما ينطبق)
- كلاب
  - قطط
  - حيوانات الصغيرة الأخرى (الفئران والطيور والزواحف والدواجن)
  - حيوانات الكبيرة (الخيول والأغنام والماعز والأبقار والحمير والخنازير)
  - أخرى (يرجى التحديد)

ت. كم مرة قمت فيها بأي من هذه الأفعال (إذا تم تحديد أكثر من فعل واحد ، فاختر العدد المجمع من المرات)؟

i. مرة واحدة

ii. مرتين

iii. 3 إلى 5

iv. 6 أو أكثر

ث. ما هي بعض الأسباب وراء الفعل / الأفعال؟

.....

ج. هل سبق لك أن قمت بأي من هذه الأفعال بمفردك (أي بدون وجود أي شخص آخر)؟

i. نعم ، كنت وحدي

ii. لا ، كنت مع أشخاص آخرين

ج. 1. إذا (لا) من كان معك (حدد كل ما ينطبق)

i. الأب أو/و الأم

ii. أخوة أو أخوات

iii. الأصدقاء / الأقران

iv. أخرى ، يرجى التحديد .....

8. هل سبق لك أن أذيت حيواناً عن قصد بغرض مضايقته أو التسبب له في ألم؟

○ نعم

○ لا

إذا كانت الإجابة بنعم، سيتم طرح الأسئلة التالية

أ. ما هو العمر الذي قمت فيه بهذا الفعل لأول مرة؟

i. 2-5 سنوات

ii. 6-12 سنة

iii. 18-3 سنة

iv. أكثر من 18 عامًا

ب. ما هي أنواع الحيوانات المستهدفة؟ (إختار كل ما ينطبق)

i. كلاب

ii. قطط

iii. حيوانات الصغيرة الأخرى (الفران والطيور والزواحف والدواجن)

iv. حيوانات الكبيرة (الخيول والأغنام والماعز والأبقار والحمير والخنازير)

v. أخرى (يرجى التحديد)

ت. كم مرة قمت فيها بهذا الفعل؟

i. مرة واحدة

ii. مرتين

iii. 3 إلى 5

iv. 6 أو أكثر

ث. ما هي بعض الأسباب وراء هذا الفعل؟

.....

ج. هل سبق لك أن قمت بهذا الفعل بمفردك (أي بدون وجود أي شخص آخر)؟

i. نعم ، كنت وحدي

ii. لا ، كنت مع أشخاص آخرين

ج. 1. إذا (لا) من كان معك (حدد كل ما ينطبق)

- i. الأب أو/و الأم
  - ii. أخوة أو أخوات
  - iii. الأصدقاء / الأقران
  - iv. أخرى ، يرجى التحديد .....
9. هل قتلت عمداً أي حيوان (حيوان أليف أو حيوانات ضالة أو برية)؟ (إختار كل ما ينطبق)
- i. نعم ، لمساعدة الحيوان لأنه مصاب أو مسن أو مريض
  - ii. نعم ، لحماية نفسي أو حماية الآخرين
  - iii. نعم ، لقد ذبحت حيواناً من أجل الطعام
  - iv. نعم، ذبحت حيواناً في عيد الاضحى كطقس ديني
  - v. نعم ، للسيطرة على انتشار الفئران والحشرات
  - vi. نعم ، لقد قتلت حيواناً أثناء ممارسة الصيد كرياضة
  - vii. نعم ، لقد قتلت حيواناً من أجل الترفيه أو التسلية
  - viii. نعم ، قتلت حيواناً لسبب آخر غير مذكور (يرجى التحديد .....
  - ix. لا ، لم أقتل أي حيوان عن قصد
- للإجابات (vi, vii, viii) سيتم طرح الأسئلة التالية
- أ. ما هو العمر الذي قمت فيه بهذا الفعل لأول مرة؟
- i. 2-5 سنوات
  - ii. 6-12 سنة
  - iii. 18-3 سنة
  - iv. أكثر من 18 عامًا
- ب. ما هي أنواع الحيوانات المستهدفة؟ (إختار كل ما ينطبق)
- i. كلاب
  - ii. قطط
  - iii. حيوانات الصغيرة الأخرى (الفئران والطيور والزواحف والدواجن)
  - iv. حيوانات الكبيرة (الخيول والأغنام والماعز والأبقار والحمير والخنازير)
  - v. أخرى (يرجى التحديد)
- ت. كم مرة قمت فيها بهذا الفعل؟
- v. مرة واحدة
  - vi. مرتين
  - vii. 3 إلى 5
  - viii. 6 أو أكثر
- ث. ما هي بعض الأسباب وراء هذا الفعل؟
- .....
- ج. هل سبق لك أن قمت بهذا الفعل بمفردك (أي بدون أي شخص آخر)؟
- i. نعم ، كنت وحدي
  - ii. لا ، كنت مع أشخاص آخرين
- ج. 1. إذا (لا) من كان معك (إختار كل ما ينطبق)
- v. الأب أو/و الأم
  - vi. أخوة أو أخوات
  - vii. الأصدقاء / الأقران
  - viii. أخرى ، يرجى التحديد .....

## Appendix F: Arabic Semi-structured Interview

### أسئلة للمقابلات

1. كيف تصف تعاملاتك مع الحيوانات (الحيوانات الأليفة، الضالة، حيوانات المزرعة، القوارض ...)?
2. ما رأيك في الممارسات التالية؟
  - a. هجر الحيوانات الأليفة في الشارع
  - b. تنظيم معارك الكلاب
  - c. تسميم الحيوانات الضالة
  - d. ممارسات ذبح الماشية غي مصر
  - e. إقتناء الكلاب من السلالات الأصلية مقابل التبني من الملاجئ
  - f. التبرع للملاجئ التي تنقذ الحيوانات
3. ما الأسباب التي قد تدفعك لأن تتعامل بعنف مع الحيوانات؟
4. كيف تصف موقف دينك من معاملة الحيوانات؟
  - أ. هل تلتزم بهذه التعاليم؟
5. كيف تصف تعاملات والديك مع الحيوانات؟
6. كيف تصف تعاملات زملائك / أصدقائك مع الحيوانات؟ (في حالة الإساءة، هل سبق أن أثروا عليك لكي تنضم إليهم في هذا السلوك؟)
7. ما رأيك في العبارة التالية "يمكن للحيوانات أن تشعر بالعواطف مثل الفرح والخوف والألم"؟
8. هل تعتقد أن الحيوانات تستحق نفس مستوى التعاطف والرحمة مثل البشر؟
9. هل تعتقد أن بعض الحيوانات تستحق معاملة أقسى من غيرها (مثل: كلب مقابل قط، الخنازير، الفئران)؟
10. هل أنت على علم بأي قوانين لحماية الحيوانات في مصر؟
  - أ. هل تعتقد أن أي شخص يؤذي حيواناً (أو يقتل حيوان بخلاف من أجل الطعام) يجب أن يواجه مشكلة مع القانون؟