

**TOWARD A GREATER UNDERSTANDING OF THE ASSESSMENT, PSYCHOLOGICAL
CORRELATES, AND MANAGEMENT OF HUMAN PERPETRATED SEXUAL
BEHAVIOR TOWARD ANIMALS**

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ABSTRACT

Sexual interest in and contact with animals has existed throughout history with varying levels of practice and acceptance. Despite this long history, very little is actually known about human sexual interest in animals and sexual behavior targeting nonhuman animals. The present dissertation aims to explore the phenomenon of sexual interest in animals through examining what veterinary medical professionals know about the detection and reporting of animal sexual abuse (ASA; Chapter 2), and through the creation of a psychometric self-report measure of sexual interest in animals and a visual stimulus set for animal attractiveness ratings (Chapter 3). To that end, this dissertation document is comprised of two studies.

To date, there has been very little study of ASA. Subsequently, very little is known about veterinary medical professionals' (e.g., Veterinarians, Veterinary Technicians, and Veterinary Nurses) knowledge of ASA and how they may contribute to the prevention of animal sexual abuse. Thus, the objective of this paper is to comprehensively and purposefully study ASA in a sample of veterinary medical professionals. Eighty-eight professionals were recruited through provincial/state professional associations and posts on social media to take part in a survey examining non-sexual abuse, sexual abuse, and criminal justice perceptions. Results indicated that, while veterinary medical professionals reported wanting more training on both nonsexual and sexual abuse, levels of knowledge were much lower for sexual abuse with fewer professionals reporting having received training in the area. Professionals also responded quite punitively towards individuals who have committed sexual abuse against animals and supported long prison sentences and registries for offenders. Veterinary medical professionals were very supportive of mandatory reporting of abuse but did not feel prepared to testify in these cases should they go to court.

Sexual interest in nonhuman animals (zoophilia), is a scant investigated topic owing partially to difficulties in assessing the behavior outside of a clinical setting. While there have been previous attempts to categorize individuals with a sexual interest in animals into classification systems, this requires extensive clinical interviews and psychometric testing. Previous classifications also lack clarity on the adjacent concept of furryism and how it may be related to zoophilia. As there are currently no validated psychometric measures of zoophilia, individuals with a sexual interest in animals are a challenging population to research and may be under-detected in clinical settings. The central aim of the present study was to examine the measurement and correlates of sexual attraction to nonhuman animals through the development and refinement of psychometric and visual stimulus measures of animal sexual interest. Participants included 1,228 respondents (72% zoophilic and 35% furries) recruited from the online community. Results indicated that a Sexual Interest in Animals-Self Report (SIA-SR) scale had 4 distinct subscales with excellent discrimination for self-reported zoophilia. Moreover, endorsement of sexual interest in horses and dogs from visual stimuli was most common among the individuals in the sample, while dog and horse sexual and romantic attractiveness ratings also had the largest and most consistent associations with SIA-SR scores and self-reported zoophilia.

Taken together, these results have implications for veterinary practice and education, as well as research and clinical practice with individuals with zoophilic interests. In terms of veterinary practice, the results indicate that veterinary medical professionals receive insufficient training on abuse—particularly sexual abuse—which could put their patients at risk of further harm. Moreover, the results contribute to a greater understanding of the sexual interest patterns for persons with zoophilia and have implications for theory, future research, and clinical practice.

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TABLE OF CONTENTS

Contents

TABLE OF CONTENTS.....	v
LIST OF TABLES.....	x
LIST OF APPENDICES.....	xi
1. GENERAL INTRODUCTION.....	1
1.1 Prevalence.....	2
1.2 Classification Typologies for Sexual Interest in Animals.....	3
1.2.1 Class I.....	5
1.2.2 Class II.....	6
1.2.3 Class III.....	6
1.2.4 Class IV.....	6
1.2.5 Class V.....	6
1.2.6 Class VI.....	6
1.2.7 Class VII.....	6
1.2.8 Class VIII.....	7
1.2.9 Class IX.....	7
1.2.10 Class X.....	7
1.3 Bestiality as an Animal Welfare Issue.....	8
1.3.1 Reporting and Training.....	10

1.4 Conclusion	12
2. MATERIALS.....	13
2.1 Sexual Interest in Animals Scale Development	13
2.3 Modified Scales	16
2.3.1 Modified Community Attitudes Toward Sexual Offenders.....	16
2.3.2 Modified Abel Becker Cognition Scale.....	17
3. A SURVEY OF VETERINARY MEDICAL PROFESSIONALS’ KNOWLEDGE, ATTITUDES, AND EXPERIENCES IN RESPONDING TO ANIMAL SEXUAL ABUSE	20
3.1 Introduction.....	20
3.1.2 Current Study.....	23
3.2 Materials and Methods.....	24
3.3 Results.....	25
3.3.2 Experience with Animal Sexual Abuse Cases	25
3.3.3 Experiences Dealing with Suspected or Confirmed Cases of ASA.....	25
3.3.4 Veterinary Medical Professionals’ Perceptions of Criminal Justice Responses to ASA and Perpetrators	26
3.4 Discussion.....	27
3.5 Conclusion	30
3.5.1 Conflict of Interest Statement	30
3.5.2 Acknowledgements.....	30

4. MEASUREMENT AND CORRELATES OF ZOOPHILIC INTEREST IN AN ONLINE COMMUNITY SAMPLE.....	39
4.1.1 Prevalence of Zoophilia and Bestiality	40
4.1.2 Classification Typologies for Sexual Interest in Animals	41
4.1.3 Rationale for the Current Study	44
4.2 Method	45
4.2.1 Participants.....	45
4.2.2 Procedure	46
4.2.3 Measures	46
4.2.3.1 Animal Visual Stimuli	46
4.2.3.2 Sexual Interest in Animals-Self-Report (SIA-SR).....	47
4.2.3.3 Multiple Paraphilic Interests Scale	47
4.2.4 Planned Analyses	48
4.3 Results.....	50
4.3.1 Latent Structure of Sexual Interest in Animals: Factor Analysis	50
4.3.2 Bivariate Associations for Self-Reported Animal Sexual Interest and Attraction Ratings	51
4.3.3 Zoophilia and Other Self-Reported Paraphilic Behavior.....	52
4.3.4 Predictive Accuracy of Animal Sexual Interest and Attraction for Self-Reported Zoophilia.....	52

4.3.5 Logistic Regression: Prediction of Binary Zoophilic Identification by SIA-SR and Animal Stimulus Ratings	53
4.4 Discussion	54
4.4.1 Latent Structure of Zoophilic Interest	54
4.4.2 Predictive Indicators of Self-Reported Zoophilia	55
4.4.3 Zoophilia, Furryism, and Paraphilias	57
4.4.4 Strengths, Limitations, and Future Research Directions	58
5. GENERAL DISCUSSION	71
5.1 Summary of Findings	71
5.1.1 Manuscript One	71
5.1.2 Manuscript Two	76
5.2 Limitations and Recommendations for Future Research	82
5.3 Reflections	85
5.4 Conclusion	88
References	89
Appendix A: Modified CATSO	104
Appendix B: Modified ABCS	105
Appendix C: SIA-SR	107
Appendix D: Demographics for Participants from Zooville	109
Appendix E: Supplemental Tables	114

Appendix F: Survey for Animal Care Professionals.....	118
Appendix G: Measuring Interest in Animals	131
Version A: General Public and Students	131
Version B: Zooville Community	184
Appendix H: Consent Forms	246
Appendix I: Recruitment Materials	252

LIST OF TABLES

Table 3-1. Types of injuries encountered by veterinary medical professionals.....	37
Table 3-2. Means and ranges for the CATSO and ABCS.....	38
Table 4-1. Sexual Interest in Animals Self-Report Factor Loading Matrix.....	65
Table 4-2. Correlation Matrix: Bivariate Associations between SIA-SR Scores and Animal Stimulus Composite Ratings (Average Item Values).....	67
Table 4-3. Zoophilic Identification and Endorsement of Other Paraphilic Interests or Behaviors.....	68
Table 4-4. Predictive Accuracy (d and AUC) of SIA-SR Scores and Animal Stimulus Composite Ratings (Average Item Values) for Self-Reported Zoophilia.....	69
Table 4-5. Logistic Regression: Prediction of Binary Self-Reported Zoophilia by SIA-SR and Animal Stimulus Ratings.....	70

LIST OF APPENDICES

Appendix A: Modified CATSO.....	104
Appendix B: Modified ABCS.....	105
Appendix C: SIA-SR.....	107
Appendix D: Demographics for Participants from Zooville.....	109
Appendix E: Supplemental Tables.....	114
Appendix F: Survey for Animal Care Professionals.....	118
Appendix G: Measuring Interest in Animals Survey.....	131
Appendix H: Consent Forms.....	246
Appendix I: Recruitment Materials.....	252

CHAPTER 1

1. GENERAL INTRODUCTION

Sexual interest in animals has been referred to by a variety of terms (e.g., bestiality, opportunistic zoophilia, necrozoophile/necrozoobestialist; zoophilia/classic zoophilia, zoophilia by proxy, zooerasty, zoosadism) each with its own definition, in turn making the issue difficult to classify and systematically study (Stern & Smith-Blackmore, 2016). A review of terminology by Beetz (2008) makes a point of differentiating the term *zoophilia*—an emotional and sexual preference for animals—from *bestiality*—physical and sexual contact with an animal that results in sexual arousal for the human. Although chronically under-researched (Beetz, 2004), sexual contact with animals is not a new phenomenon. Cave paintings depicting sexual contact with animals have been discovered indicating that it has existed, or at least was depicted, as early as the Iron and Bronze Ages (Dekkers, 1994; Gregersen, 1983; Taylor, 1996). Sexual contact with animals was also evident in Roman society as there are accounts that brothels existed for the sole purpose of offering animal services (Schmidt, 1969). Additionally, animals were trained to have sex with women for the Olympic Games (Dekkers, 1994; See Beetz, 2004, for a full historical review). From these historical accounts, it is evident that the acceptability of human sexual contact with animals has varied across time periods and cultures.

There is no universal consensus on the legal response to ASA and sexual contact with animals. Recently, Denmark was the site of legal and political debate over whether or not sex with animals should be criminalized with some arguing that the rationale for banning the practices was not very persuasive (Christiansen, Greve, & Sandøe, 2009). In the United States, in 1993, only seven states had legislation that classified at least one type of animal abuse as a felony offence. By 2010, the number of states with legislation making animal abuse a felony had

increased to 46 indicating a strong trend toward valuing animal welfare (ALDF, 2010; Associated Press, 2009). Currently, bestiality is illegal in 44 states (ALDF, 2017) and is also illegal under US Armed Forces Code (10 U.S. Code, 2016). The Canadian Criminal Code Section 160(1) expressly prohibits bestiality and prescribes offenders to a sentence not exceeding 10 years (Criminal Code, 1985; Gacek & Jochelson, 2017). The Code did not provide a definition of bestiality and, in fact, in *R. v. D.L.W.* (2015), the Supreme Court of Canada concluded that Canada's bestiality laws did not strictly prohibit sexual acts of a non-penetrative nature with animals. To address this definitional inconsistency, Bill C-84 was passed to provide an explicit legal definition of bestiality (Harris, 2019). Intended to afford more comprehensive protections from animal abuse, the expanded legislation identifies all sexual contact between a human and an animal, penetrative or not, as an act of bestiality with the same sentencing provisions as Sec. 160 CCC (Department of Justice, 2018). Although the Canadian Criminal Code defines bestiality as a sexual offense, it is obviously also a specific type of animal abuse and an issue of animal welfare.

1.1 Prevalence

As there has been a lack of systematic and scientific study of sexual contact with animals, there are very few studies that investigated the prevalence of sexual contact with animals and specific sexual behaviours (Beetz, 2004). Hunt (1974) reported that 4.9% of men and 1.9% of women had engaged in sexual contact with animals which is slightly lower than the 8% reported by Kinsey, Pomeroy, and Martin (1948). Of the men from Hunt (1974) who reported engaging in sexual contact with animals, approximately 80% of them did so prior to the age of 15 and almost half of the offenders reported that their sexual contact was with dogs. In a sample of prison inmates, Hensley, Tallichet, and Singer (2006) reported that 6% of inmates in maximum and

medium security prisons reported a history of childhood bestiality and, more recently, Henderson, Hensley, and Tallichet (2011) reported 20% of inmates had a history of sexual contact with animals. When looking at individuals with a sexual interest in animals, Miletski (2017) found that 83% of male individuals who identified as zoophiles (also referred to as zoos) had sex with an animal at a rate of 2.96 times per week. Specifically, 64% of men masturbated the animal, 42% fellated the animal, and 34% were anally penetrated by the animal. For women, 64% masturbated the animal, 55% received oral sex, and 45% were penetrated vaginally (Miletski, 2017). In a sample of men who reported frequenting sadomasochism clubs in Finland, Sandnabbe, Santtila, Nordling, Beetz, and Alison (2002) found that 7.4% of participants reported at least one sexual experience with an animal. The term zoosadism has been used to connote persons who receive sexual excitement from inflicting pain or discomfort on animals. To this end, Beetz (2002) reported that 5.3% of men practicing bestiality reported harming an animal and almost twice as many (9.7%) used force in some capacity during sexual relations. These results indicate that, in the general population, prevalence rates tend to be fairly low but the behaviour tends to be more common in atypical samples such as people with sadomasochistic tendencies and prison inmates.

1.2 Classification Typologies for Sexual Interest in Animals

Although there is a relative abundance of case studies examining individuals with sexual interest in animals (e.g., Bhatia, Srivastava, & Sharma, 2005; Earls & Lalumière, 2002; Wilcox, Foss, & Donath, 2015) with many focusing on individuals in forensic settings (Holoyda, 2017), there has been a lack of systematic review of the characteristics of individuals with a sexual interest in animals. Currently, sexual interest in animals is classified as a “Paraphilia Not Otherwise Specified” in the 5th edition of the Diagnostic and Statistical Manual (DSM-5;

American Psychiatric Association, 2013). Moreover, the World Health Organization's (WHO) International Classification of Diseases 10th edition (ICD-10; World Health Organization, 2016) only mentions sexual activity with animals in passing when discussing patterns of sexual preference. This means that sexual interest in animals is not specifically diagnosed in either of the principal classification manuals used by mental health professionals. Due to the lack of classification, the main way to assess sexual interest in animals seems to be through clinical interview (Bhatia et al., 2005) or penile plethysmography (Earls & Lalumière, 2002) and there are no specific assessment tools known to the author.

Despite the lack of diagnostic tools there have been two noteworthy attempts at creating a classification system. Earls and Lalumière (2002) outline the criteria necessary for an individual to be considered to be an individual with preferential zoophilia/bestiality. According to their research and clinical opinion, in order to be considered a person with preferential zoophilia/bestiality, the individual must meet the following criteria:

“(1) the individual reports intense and recurrent sexual fantasies and urges about having sexual interactions with nonhuman animals, or reports repeated sexual interactions with nonhuman animals accompanied by strong sexual arousal; (2) the individual chooses sexual interactions with nonhuman animals even when willing human partners are available; (3) using objective measures, the individual shows greater sexual arousal to images of members of a nonhuman species than to images of humans, or shows greater sexual arousal to descriptions of sexual interactions with members of a nonhuman species than to descriptions of sexual interactions with humans” (Earls & Lalumière, 2002, p. 84).

Using these criteria, Earls and Lalumière (2002) estimate that preferential bestiality/zoophilia should be a rare phenomenon. More recently, Aggrawal (2011) suggested a more comprehensive classification system for zoophilic individuals based on a previous classification system for necrophilic offenders (Aggrawal, 2009) where individuals are classed on a continuum with the least extreme behaviours occupying class I and the most extreme behaviours are grouped into Class X. These will be explained in detail below.

1.2.1 Class I. Class I individuals who identify as zoophilic are termed “human-animal role-players” and, as the name implies, they are excited by the thought of having sexual contact with non-human animals. These individuals do not actually have sexual contact with non-human animals, but they prefer to have human partners act as animals as part of their sexual interactions. These individuals are aroused by the idea of the transformation of a human to an animal status and common activities include BDSM (bondage dominance submission masochism) practices, where the transformation to an animal status may act as a symbolic show of submission, such as pet play, pony play, ponyism, and pup-play. Although not explicitly mentioned in the classification system, the adjacent concept of Furry-ism—individuals attracted to anthropomorphized animals and/or the idea of being an anthropomorphised animal rather than being sexually attracted to animals themselves (Hsu & Bailey, 2019)—may fit under this classification. Although very similar, it could be argued that attraction to non-human animals and anthropomorphized animals are conceptually distinct. Being able to differentiate the two, and understanding the difference between how the general population views them is of considerable importance as it informs educational campaigns and potential clinical responses.

1.2.2 Class II. Class II individuals are termed “romantic zoophiles”. These people keep animals as pets in order to gain psychosexual stimulation but they do not actually engage in sex with the animal.

1.2.3 Class III. Class III individuals are identified as “zoophilic fantasizers”. These individuals have fantasies about sexual interactions with animals but do not actually commit acts of bestiality. These individuals may masturbate while animals are present or may engage in zoophilic voyeurism or exhibitionism.

1.2.4 Class IV. Class IV individuals are termed “tactile zoophiles” and, for these individuals, their interest in animals rises to the level of physical contact. Class IV individuals receive sexual excitement and gratification by stroking and fondling the genital, perianal, and anal region of an animal. Some Class IV individuals with zoophilia also practice zoophile frotteurism (i.e., rubbing against an animal for sexual gratification).

1.2.5 Class V. Class V individuals have “fetishistic zoophilia”. These individuals preserve parts of animals (e.g., furs) and use them as fetishistic objects for their zoophilic activities. These individuals would not be aroused by other common fetishized object such as shoes and the object would need to be part of an animal to result in arousal for the individual.

1.2.6 Class VI. Class VI individuals are termed “sadistic bestials.” For these individuals, pleasure is derived from sadistic activities with an animal such as torture. Class VI individuals who are zoophilic derive pleasure from physical acts with animals without actually engaging in sexual intercourse with the animal.

1.2.7 Class VII. Class VII individuals are termed “opportunistic zoosexuals.” These individuals would be satisfied with sexual encounters with willing human partners but will have sexual intercourse with animals if the opportunity arises. These behaviors may be seen in

incarcerated or stranded individuals or individuals who have access to animals when no one else is present. While these individuals engage in sexual intercourse with animals, these individuals do not have a romantic attraction to animals.

1.2.8 Class VIII. Class VIII individuals are “regular zoosexuals”. These individuals do not enjoy sexual intercourse with humans and have a preference for nonhuman partners. Although they have a strong nonhuman animal preference, they can have intercourse with both humans and nonhuman animals. These individuals have an emotional connection with animals that they describe as love and they do not intend to harm the animals that they have sex with. Some individuals in this class might also commit offences by proxy, meaning that they instruct another individual such as a partner or child to have sexual contact with an animal—this was the case in *R. v. D.L.W.* (2015) where D.L.W. attempted to force his stepdaughter to have intercourse with the family dog and, when that failed, spread peanut butter on her vagina and took photographs while the dog licked it off.

1.2.9 Class IX. Class IX individuals are termed “homicidal bestials.” These individuals kill animals and practice necrozoophilia, although they may have sexual intercourse with living animals as well. These individuals have an overwhelming urge to have intercourse with corpses of animals and usually kill animals to satisfy these urges. Serial killer Jeffery Dahmer was noted to have been part of this class as he often masturbated to the carcasses of animals that he had found on the road.

1.2.10 Class X. Class X individuals are “exclusive zoosexuals” and would satisfy Earls and Lalumière’s (2002) criteria for exclusive zoophilia. These individuals have sexual intercourse primarily or exclusively with animals and have a strong sexual preference for animals over humans.

Aggrawal (2009) notes that a detailed history is necessary to properly classify an individual into a particular class of zoophilic interest which may present difficulties as individuals may not feel comfortable disclosing highly stigmatized information to a therapist. Additionally, many clinicians are uncomfortable asking about sexuality in general (Miller & Byers, 2012) and may be especially uncomfortable discussing taboo topics such as sexual interest in, and activity with, animals. Moreover, in cases of ASA, as nonhuman animals do not possess the language skills required to indicate that they are being abused, all admissions must come from the offenders themselves. As individuals may not be comfortable with discussing these offences in a forensic setting and therapists may not ask about offences against animals if it is not part of the index offence, some offenders may be going undetected and untreated.

1.3 Bestiality as an Animal Welfare Issue

Another common source of information on the prevalence of ASA is from practicing veterinarians as, like with children who have experienced sexual abuse (Jenny, Crawford-Jakubiak, & Committee on Child Abuse and Neglect, 2013), specialized medical professionals may be the first people to recognize signs of sexual abuse in their clients. Yet, in recent literature, the overwhelming focus on recognizing animal abuse is viewed as a means to detect other abuse in the family, particularly that of children and intimate partners, and not as an end in itself (e.g., Ascione & Shapiro, 2009; Muscari, 2004; Newland, Boller, & Boller, 2019; Williams, Dale, Clarke, & Garrett, 2008). Most of the literature that does exist detailing sexual abuse against animals tends to be relegated to case studies of specific instances of sexual abuse against animals (e.g., De Giorgio, Polacco, Rossi, Lodise, & Raino, 2009; Imbschweiler,

Kummerfeld, Garhard, Pfeiffer, & Wohlsein, 2009; Hvozdič, 2006; Stern & Smith-Backmore, 2016).

Williams, Dale, Clarke, and Garrett, (2008) reported that 63% of veterinarians had seen a case of general animal abuse in the previous five years and 37% had reported a case of abuse in the past year. Within the reported cases it was found that 6% involved genital trauma and an additional 5% of cases involved “suspected” abuse with genital trauma (Williams et al., 2008). Of the few studies to actually examine ASA, Munro and Thrusfield (2001) found that 6% of animal abuse cases reported by small-animal practitioners were ASA cases. In a sample of 110 vets, only 44.5% felt it should be their legal responsibility to report abuse, and even fewer (33.6%) to report neglect (Donley, Patronek, & Luke 1999). Of the cases reported by Williams and colleagues (2008), dogs and cats were the most common targets of abuse followed by cattle and horses. The popularity of canines was confirmed by Munro and Thrusfield (2001), who found that the majority of reported and suspected cases of ASA involved dogs. Additionally, Miletski (2002) reported that 90.3% of men who engaged in bestiality did so with a male canine and 87.2% reported a sexual attraction to canines. Beyond canines, Weidner (1972) surveyed 400 German veterinarians and found that the most commonly reported victims of ASA were horses, pigs, sheep, fowl, and goats. Case studies have also reported the deaths of both sheep (Imbschweiler, Kummerfeld, Garhard, Pfeiffer, & Wohlsein, 2009) and calves (Hvozdič, 2006) from complications related to ASA. Moreover, Miletski (2002) reported that almost 80% of their sample of men who engaged in bestiality reported a sexual attraction to equines. Overall, these results seem to indicate that domestic animals such as canines and felines tend to be the most common targets of ASA, followed by horses and cows, and then a variety of other farm animals.

1.3.1 Reporting and Training. Although veterinary medical professionals may be some of the first individuals to detect ASA among their patients, there is very little training and educational preparation in ASA offered to this profession leading to calls for additional training among professionals (e.g., Johnson et al., 2015). When asked to discuss how their education had prepared them to face incidents of general animal abuse in practice, Sharpe and Wittum (1990) found that 84% of small animal veterinarians felt that their education did not prepare them to intervene in cases of animal abuse and only 57% felt that they understood the legal issues surrounding animal abuse. There have been multiple studies examining the lack of general animal welfare courses offered in veterinary schools despite indications that they can have a positive benefit for students (Abood & Siegford, 2012; Lord, Walker, Croney, & Golab, 2010). For example, Williams and colleagues (2008) report that, in a sample of veterinarians from New Zealand, only 15.1% of respondents agreed that their veterinary education had provided adequate training in the recognition of animal abuse.

Animal welfare courses proliferated globally in the late 1990's and early 2000's (Estol, 2004). Despite this growth, a review of 13 veterinary school curriculums from across the world reported that abuse was only mentioned in describing one school's curriculum, which was in the context of the link between animal abuse and human abuse (Hewson et al., 2005)—echoing the trends observed in the published literature as well. In a more recent survey of veterinary colleges in Canada, the US, and the Caribbean, only 13 offered content related to animal welfare and only 9 offered content on the recognition and management of animal pain and distress (AVMA Model Animal Welfare Curriculum Planning Group et al., 2017). While animal welfare does get a fair amount of attention in the University of Guelph's agricultural college, the topic is all but neglected in the Ontario Veterinary College (Millman, Adams, & Turner, 2005). The lack of

formalized coursework for animal health care professionals specializing in animal welfare is particularly concerning as research indicates that an understanding of welfare is essential to improving the minimum welfare standards for animals (Mellor & Webster, 2014). Hazel, Signal, and Taylor (2011) found that animal welfare courses can increase empathy at least for some groups of animals, such as pests and profit animals but, concerningly, some researchers have found that the importance of animal welfare declined as students progressed through their programs (Cornish et al., 2016; Pollard-Williams, Doyle, & Freire, 2014). Although there seems to be a fair amount of research documenting veterinary education related to general animal welfare, there is no information available regarding ASA-related education to the best of the author's knowledge.

In addition to a lack of general information on animal welfare and ASA, veterinarians also receive very little information on handling and reporting abuse that they witness in practice. For example, less than 7% of one sample of practicing veterinarians reported having had any training on how to handle suspicions of animal abuse (Landau, 1999). Training on how to respond to and report abuse is of the utmost importance as there are different laws, duties, and ethical implications based on where the veterinarian is practicing. The American Veterinary Medical Association's (AVMA) 2012 Policy on Animal Abuse and Neglect claims that the vet is responsible to report animal abuse to authorities, regardless of whether it is legally mandated. Despite this ethical standard set forward by the AVMA, only 20 of the 50 states mandate or permit vets to report abuse with immunity from civil and criminal liability (Arkow, 2015). In Canada, despite the Canadian Veterinary Medical Association stating that all veterinarians have a "moral" obligation to report suspected abuse (CVMA, n.d.), veterinarians are only required to report abuse in five Canadian provinces/territories (Arkow, 2015). In Australia, there are no

mandatory reporting laws for veterinarians (Acutt, Signal, & Taylor, 2015). These disparate policies across countries and jurisdictions highlight the importance of education on welfare and reporting in order for veterinarians to remain in compliance with their ethical and legal duties.

In addition to noted deficits in preparatory education, veterinarians have also been calling for further training in the detection and reporting of sexual abuse (Fawcett, 2016; Lachance, 2016). Both a US-based study (Ascione & Barnard, 1998) and an Australian-based study (Green & Gullone, 2005) on veterinarians noted that inadequate training on abuse is a significant barrier to reporting. This lack of competency in reporting may lead to an underreporting of animal abuse as, in one survey of UK veterinarians, 14.2% indicated that they did not report suspected dog fighting even though the practice is illegal. There was no difference between veterinarians and Registered Veterinary Nurses and no effect of experience (Milroy, Whiting, & Abeyesinghe, 2018). Roughly 1 in 5 indicated that they did not report the cases of abuse because they lacked the knowledge, indicating their lack of training on abuse posed a barrier to the reporting of abuse against animals.

1.4 Conclusion

In order to address the gaps identified in the literature, the present dissertation aims to explore the phenomenon of sexual interest in animals through examining what veterinary medical professionals know about the detection and reporting of ASA, and through the creation of a self-report measure of sexual interest in animals. To that end, this dissertation document is comprised of two studies. The first study examined what veterinary medical professionals know about the detection of ASA and the second study examined the development of a psychometric evaluation of a self-report inventory of sexual interest in animals.

CHAPTER 2

2. MATERIALS

2.1 Sexual Interest in Animals Scale Development

In order to measure sexual interest in animals quantitatively, the Sexual Interest in Animals – Self-Report scale (SIA-SR) was developed. Initial questions were developed by using previous typologies (i.e., Aggrawal, 2011; Earls & Lalumière, 2002). Different aspects of the classes included in these systems were converted into questions that could be answered on a Likert-style scale. For example, Class I in Aggrawal’s (2011) system describes “human-animal role-players” who engage in animal role plays with humans in their sexual activity (e.g., pet play, pony play) but prefer human partners and have no animal sexual contact. This class was divided into two questions: “I like my human sexual partners to act like an animal, for instance, through pet play, pony play, ponyism, or pup-play” and “I like to act like an animal during sexual intercourse or foreplay with humans.” Additional questions were also added to include behaviours related to furryism (Hsu & Bailey, 2019). This process resulted in 31 items that covered all classes included in previous classification systems for zoophilia and behaviours associated with furryism.

After these initial items were selected, the items were reviewed by doctoral-level Clinical and Applied Social Psychology trainees with an expertise in forensic psychology at the University of Saskatchewan. These consultations resulted in 32 refined scale items. After consulting with trainees in the area, two experts were consulted for their opinion on the scale items. Both experts, Drs. Tracey Curwen and Skye Stephens, have many years of experience in forensic psychology, human sexuality, and the measurement of these constructs. Their feedback assisted in the refinement of the 32-items initially proposed by myself and refined by the forensic

psychology trainees. This version of the survey (i.e., Version A) was used in the final survey was completed by students and the general public—which may or may not have included individuals with zoophilic interest. Version A was also the initial survey presented to the Zooville community for feedback.

As the population of this survey is fairly unique, consultation with the Zooville community was also undertaken. Zooville (zooville.org) is an online forum that provides a space for individuals with a sexual interest in animals to congregate and communicate with one another. The Zooville community strongly condemns activities that cause animals any pain and focuses on ethical practices (ZTHorse, personal communication, August 2020). In fact, Zooville has specific rules stating that any content involving immature or small animals, necrophilic content, or content involving obvious pain or blood is not allowed (dogluver101, 2020). Moderators of the Zooville forum were provided with Version A of the survey and were invited to provide feedback on any alterations that would make it more suitable for the Zooville audience—all of whom would presumably identify as members of the zoophile community. Suggestions provided by the Zooville community were extremely helpful and provided insights and wording suggestions specific to the zoophile community that were unknown to myself, the forensic psychology trainees, and the experts consulted. These suggestions resulted in a 39-item Version B of the survey that was used for the Zooville community (see Appendix G for both versions of the survey).

As described in Chapter 4, an exploratory factor analysis (EFA) was conducted on the items from the SIA-SR to identify possible subscales. The initial PCA, coupled with scrutiny of item-total correlations suggested four possible candidate factors with 37 eligible items (items that did not load above .32 and/or had weak item-total correlations were removed). EFA followed to

refine and finalize the factor solution using Mplus with default Maximum Likelihood model estimation to extract the factors and Geomin oblique rotation. A four-factor model without cross loadings provided adequate fit to the data: CFI = .867, RMSEA = .093, 95%CI (.091, .095).

The four factors were labeled: *Zoophilia* (20 items, eigenvalue = 16.597, $\alpha = .88$), *Opportunism* (5 items, eigenvalue = 3.694, $\alpha = .77$), *Zoosadism* (5 items, eigenvalue = 2.767, $\alpha = .72$), and *Furryism* (7 items, eigenvalue = 2.140, $\alpha = .89$). The Zoophilia scale contains items that indicate a general sexual interest in nonhuman animals and desire to have sexual contact with them. The Opportunism scale includes items that indicate a sexual preference for humans, but a willingness to have sexual contact with nonhuman animals if an opportunity is present. The Zoosadism scale captures sexual attitudes, urges, preferences, and behaviors regarding the pain and suffering of nonhuman animals and/or having sexual contact with dead animals. Finally, the Furryism scale contains items related to sexual excitement with anthropomorphized animals and fursuits.

2.2 Veterinary Medical Professional Survey

The survey for veterinary medical professionals was developed based on previous research on general and sexual abuse reported by veterinarians. As there is very little information available on ASA in the veterinary community and a strong taboo against discussing this topic (Munro, 2006), the survey opened on more general abuse and moved towards more taboo topics as the survey progressed. Participants were also provided with a definition of ASA as defined by Stern and Smith-Blackmore (2016) to ensure that all participants had a common understanding of the phenomenon. While most of the questions included on the survey had to be developed based on the literature, we were able to include a question about the types and locations of injuries previously used by Williams and colleagues (2008).

Owing to the taboo in the veterinary community (Munro, 2006), it was also extremely difficult to secure an academic veterinarian as a consultant on this project. Several faculty members at the Western College of Veterinary Medicine were contacted and asked to join the research team, but all those contacted (including those with a stated specialty in animal welfare) indicated that they were unfamiliar with the topic, uncomfortable with the topic, or had trauma related to seeing ASA in their past practise and did not feel comfortable joining the team. In the absence of an academic veterinarian, a practising veterinarian was sought to provide consultation. Our consultant, Dr. Jaclyn Goldmacher, is a practising emergency medicine veterinarian who is licensed in both North American and the United Kingdom. She has experience working in large cities and rural areas in the UK as well as major cities in North America. Her consultation and feedback provided important wording considerations that are specific to the field of veterinary medicine. For example, veterinarians use the word “patient” to describe the animal that they are treating and “client” to refer to the owner.

2.3 Modified Scales

2.3.1 Modified Community Attitudes Toward Sexual Offenders. The Community Attitudes Toward Sex Offenders Scale (CATSO; Church et al., 2008) was originally developed to measure attitudes towards sexual offenders in the general population. The CATSO is an 18-item scale measured on a 6-point Likert scale anchored at “strongly disagree” and “strongly agree.” There are four subscales included in the CATSO (social isolation, capacity to change, severity/dangerousness, and deviancy) and higher scores correspond to higher endorsements of those behaviours among sexual offenders (i.e., individuals with higher scores on the social isolation subscale highly endorse the belief that sexual offenders are loners). Validations studies of the CATSO have found mixed results regarding reliability of the subscales with social

isolation and capacity for change having good reliability and dangerousness and deviancy having poor reliability (Shelton et al., 2013; Tewksbury & Mustaine, 2013; Mustaine et al., 2015).

While many of these studies have used the CATSO to test samples of criminal justice professionals, studies using more general community samples—as this was the population that the CATSO was designed for—have found the CATSO and all of its subscales to be reliable (Church et al., 2008; Klein, 2015).

In order to adapt the CATSO for this particular study, items were modified to be specific to individuals who commit sexual acts with animals. For example, an item in the original CATSO reading “People who commit sex offenses should lose their civil rights (e.g., voting and privacy)” was modified to read “People who commit acts of sexual abuse toward animals should lose their civil rights (e.g., voting and privacy).” Two items (A sex offense committed against someone the perpetrator knows is less serious than a sex offense committed against a stranger; Someone who uses emotional control when committing a sex offense is not as bad as someone who uses physical control when committing a sex offense) were removed to accommodate for the fact that animals are generally owned by the individual or known to them and that animals may have different levels of emotion as compared to human victims. The modified CATSO was reviewed by the forensic psychology trainees and two experts to ensure wording was consistent and any exclusions were warranted.

2.3.2 Modified Abel Becker Cognition Scale. The Abel Becker Cognition Scale (ABCS) was designed to capture cognitive distortions supportive of sexual offending (Abel et al., 1984). Cognitive distortions are dysfunctional thought patterns used to rationalize or justify the offending behaviour (Abel et al., 1989). The ABCS was one of the first scales designed to capture cognitive distortions related to sexual offending and has shown to have be quite reliable

(Abel et al., 1989; Hanson & Scott, 1995). The ABCS has been used by numerous studies examining sexual interest in children (e.g., Allan et al., 2007; Marshall et al., 2001; Stermac & Segal, 1989) and has been adapted specifically for this population (Merdian et al., 2014). As animals share many of the same vulnerabilities of children (e.g., obedience, inadequate language skills to communicate abuse), this modified version of the ABCS was selected. Similarly to the CATSO, items were changed to refer specifically to individuals who commit acts of abuse against animals and all changes were reviewed by the forensic psychology trainees and experts.

The original modified ABCS contained 39 items and was rated on a 5-point Likert scale anchored at “strongly agree” and “strongly disagree.” Four of the original items (“Children do not tell others about having sex with a parent (or other adult) because they really like it and want it to continue,” “Having sex with a child is a good way for an adult to teach the child about sex,” “If an adult has sex with a young child it prevents the child from having sexual hang-ups in the future,” and “My daughter (son) or other young child knows that I will still love her (him) even if she (he) refuses to be sexual with me”) were removed to better reflect the animal targets of this behaviour. The six subscales were retained and modified to fit the target population (i.e., sexual objectification of animals, justification, animals as sexual agents, denial of sex offender status, emphasis on cognitive elements, and power and entitlement). Four additional questions (“Instances where a human is sexually penetrated by an animal are less serious than when a human penetrates an animal,” “People who have sexual contact with animals don’t have satisfying relationships with other people,” “An animal can uniquely understand a human’s sexual needs,” and “I am interested in animal-like activities (e.g., wearing a dog collar, being walked on a leash, wearing a saddle and/or bit)”) were added to the end of the ABCS based on previous literature. These questions were exploratory, novel, and not included in the original

ABCS and were unique to the context of this study. Additionally, some of the language was changed to be less stigmatizing to the individuals who have a sexual interest in animals (American Psychological Association, 2020; Cox, 2020; Lowe & Willis, 2020; Willis, 2017; Willis & Letourneau, 2018; Willis, 2017). Despite these efforts to be less stigmatizing, the ABCS was not well received by the Zooville community and was removed from Version B of the survey. All subscales had acceptable reliability ($\alpha > .74$), indicating that these modifications did not negatively impact the reliability of the scale.

CHAPTER 3

3. A SURVEY OF VETERINARY MEDICAL PROFESSIONALS' KNOWLEDGE, ATTITUDES, AND EXPERIENCES IN RESPONDING TO ANIMAL SEXUAL ABUSE¹

3.1 Introduction

To date, there has been considerably little research exploring animal sexual abuse (ASA), despite the obvious social concern for the welfare of animals and the legal ramifications of such actions (ALDF, 2017, Criminal Code, 1985). This makes it difficult to pinpoint how prevalent this behaviour is (Beetz, 2004). Additionally, a lack of consistent definition and use of terms like ASA, bestiality, and zoophilia further hinders comprehensive studies of human sexual contact with animals (Beetz, 2008; Stern & Smith-Blackmore, 2016). For the purposes of this study, ASA was operationalized using the definition provided by Stern and Smith-Blackmore (2016) which states that: “bestiality or animal sexual abuse (ASA), like rape, is the erotization of violence, control, and exploitation. ASA includes the sexual molestation of animals by humans, including a wide range of behaviors, such as fondling genitalia; vaginal, anal, or oral penetration or oral-genital contact (from person to animal and vice versa); penetration with an object; and injuring or killing an animal for sexual gratification (zoosadism). The ways that ASA may result in a fatality or injury to the animal victim differs with the activity. ASA is an activity that may be perpetrated by men and women; however, only men can penetrate an animal with a penis and ejaculate on or in the animal.” Early studies of community samples report an estimated prevalence ranging from 2 to 8% in North American samples (Kinsey et al., 1948; Hunt 1974).

¹ As of the submission of this dissertation (June 25, 2021), this article has been submitted for review in a peer-reviewed journal. This article is co-authored with Brandon Sparks and Mark Olver. All of the writing and analysis was performed by myself (AMZ). Brandon Sparks contributed to the conceptualization of this study and Mark Olver provided supervision of this project.

However, when looking at samples of incarcerated men, this number jumps to 6 to 20% (Hensley et al, 2006; Henderson et al., 2011).

Another common source of information on the prevalence of ASA is from veterinarians as—like with children who have experienced sexual abuse (Jenny et al., 2013)—specialized medical professionals may be the first people to recognize signs of sexual abuse in their patients. In one of the few studies to include an examination of ASA, Munro and Thrusfield (2001) found that 6% of the 448 animal abuse cases handled by small-animal practitioners in the United Kingdom involved ASA. A similar proportion was reported in a sample of 383 veterinarians in New Zealand as reported by Williams et al. (2008). Dogs are frequently reported as the most commonly targeted animals, with cats also being identified as an at-risk population (Munro and Thrusfield, 2001; Miletski, 2002; Williams et al., 2008). Others have identified common farm animals, such as horses, sheep, pigs, cows, goats, and fowl as targets of ASA, which has occasionally resulted in the animal’s death (Miletski, 2002; Hvozdič, 2006; Imbschweiler et al., 2009). The variation in targets identified by researchers suggests that ASA is a concern for all veterinarians. However, despite their position at the forefront of the battle against ASA, less than half of veterinarians surveyed in Massachusetts feel that they should be legally obligated to report any form of abuse, with even fewer (33.6%) endorsing the mandatory reporting of neglect (Donley et al. 1999). While this is concerning, a more recent survey of veterinary professionals in Australia highlighted some important reasons for not supporting mandatory reporting, namely that it may discourage owners from seeking medical attention for their pets, worsening the welfare of the animal (Acutt et al., 2015).

3.1.1 Reporting and Training

Despite the indications that animal welfare courses can have a positive effect for students (Lord et al., 2010; Abood and Siegford, 2012; Cornish et al., 2016; Monsalve et al., 2019), major deficits in welfare trainings have been reported in the United States and South America (Shively et al., 2016; Monsalve et al., 2020). For example, Williams and colleagues (2008) report that, in a sample of veterinarians from New Zealand, only 15.1% of respondents agreed that their veterinary education had provided adequate training in the recognition of animal abuse. In Sharpe and Wittum (1990) 84% of small animal veterinarians felt that their education did not prepare them to intervene in cases of animal abuse and only 57% felt that they understood the legal issues surrounding animal abuse. Additionally, a lack of education in animal welfare and abuse reporting was indicated as an important contributing factor to a lack of reporting among South American veterinarians despite suspicions of abuse (Monsalve et al., 2019). This has led to calls for further education resources for animal care professionals (Johnson et al., 2015).

Despite the proliferation of animal welfare courses in the late 1990's and early 2000's, a review of 13 veterinary school curriculums in Europe, North America, South America, and Australasia reported that abuse was only specifically mentioned in one specific course, which was in the context of the link between animal and human abuse (Hewson et al., 2005)—meaning that, while welfare courses may cover topics relating to abuse, abuse itself is not always the focus of these courses. A review of all 30 AMVA Council on Education-accredited veterinary school curriculums indicated that only six offered a formal course on animal welfare. In a more recent survey of veterinary colleges in Canada, the US, and the Caribbean, only 13 offered content related to animal welfare and only 9 offered content on the recognition and management of animal pain and distress (AVMA Model Animal Welfare Curriculum Planning Group et al., 2017). Further reports suggest that veterinarians are also not given the appropriate resources

regarding the reporting of animal abuse. In Landau (1999), less than 7% of veterinarians reported having been trained in reporting suspected abuse. Both a US-based study (Ascione and Barnard, 1998) and an Australian-based study (Green and Gullone, 2005) on veterinarians noted that inadequate training on abuse is a significant barrier to reporting. This is concerning as there are different laws, duties, and ethical implications based on where the veterinarian is practising (AVMA, 2012; Acutt et al., 2015; Arkow, 2015; CVMA, n.d.). Further, legal protections for veterinarians also varies by jurisdiction (Arkow, 2015). These issues have led to calls for further educational resources to be allocated to veterinary professionals (Johnson et al., 2015; Fawcett, 2016).

3.1.2 Current Study

In addition to noted deficits in preparatory education, veterinarians have also been calling for further training in the detection and reporting of sexual abuse (Fawcett, 2016; Lachance, 2016). The aim of the study is to ascertain what knowledge, education/training, and experience veterinary medical professionals (VMPs; e.g., Veterinarian, Veterinary Technician, Veterinary Nurse) have in identifying and reporting ASA. Perceptions of ASA perpetrators and criminal justice responses to ASA will also be examined. Although other studies have reported incidence rates of ASA in practice (Munro and Thrusfield, 2001), to the authors' knowledge, this is the first study to comprehensively and purposefully study ASA in a sample of VMPs. As the study is exploratory in nature, it was guided by broad research questions rather than specific hypothesis. However, it was expected that VMPs would report insufficient training and little experience with respect to identifying and reporting ASA. Further, given their role as animal caregivers, it was expected that VMPs will hold negative attitudes toward the perpetrators of ASA.

3.2 Materials and Methods

The survey used in the research was developed with input from a practising veterinarian and feedback from content experts in forensic psychology and approved by the Behavioural Research Ethics Board (Beh-REB # 1669) at the University of Saskatchewan on 25 March, 2020. Participants completed the survey on an online platform. Upon consent, participants were directed to the survey, which included questions about non-sexual abuse, sexual abuse, their experiences with ASA in practice, and two standardized questionnaires: a modified version of the Abel Becker Cognition Scale (ABCS; Merdian et al., 2014) and a modified version of the Community Attitudes Toward Sex Offenders Scale (CATSO; Church et al., 2008; see Appendix A). The ABCS is a 39-item instrument with 6 subscales, answered on a 5-point scale designed to measure cognitions supportive of ASA. The CATSO is an 18-item instrument with 4 subscales, answered on a 6-point scale designed to capture attitudes towards individuals who commit acts of ASA. Following this, participants' knowledge and attitudes toward the legal responses to ASA and demographic information were measured. Participants were then fully debriefed and received 5 Canadian dollars for their participation.

Participants were recruited through emails to Canadian veterinary colleges, through newsletters distributed through provincial and state VMP associations, and through postings on social media (Facebook, Twitter, and Reddit). Ninety-nine individuals responded to the survey. Eleven were excluded as they did not answer at least 95% of the questions, resulting in a final sample of 88 participants. The mean age was 35.98 ($SD = 11.78$) and participants were primarily women (84.4%), heterosexual (71.9%), Caucasian (87.5%), and working in Canada (81%). The most common degree respondents reporting having was a Doctor of Veterinary Medicine (45.3%) followed by a registered veterinary technician/technologist degree (37.5%), and the

most common type of practice reported was general practice (44.3%; See table 3-S1 for a list of reported specialties). The mean years practising veterinary medicine was 11.70 ($SD = 11.10$).

3.3 Results

3.3.2 Experience with Animal Sexual Abuse Cases

A large majority of participants (86.5%) reported not having received any training on ASA and 84% of participants indicated that they had not received any information on reporting requirements for their jurisdiction. Individuals with a specialization beyond general practice reported receiving more training than those who were in general practice, $\chi^2(1, n = 12) = 4.29, P = .038$ (see Table 3-S1 for a breakdown of specialties reported by participants). A large proportion of respondents surveyed (81.6%) agreed that ASA knowledge was important, while almost nine-tenths (88.1%) believed that they had not received enough information on the topic. Although specialists ($M = 2.38, SD = 2.06$) reported greater ASA training satisfaction than generalists ($M = 1.41, SD = 0.69$; Welch's $F(1, 45.02) = 6.66, P = .013$), both groups' responses fell well below the scale midpoint, corresponding with scale label of "disagree." Accordingly, 86.3% of participants indicated that they would like to receive more information about ASA and the implications for their practice.

3.3.3 Experiences Dealing with Suspected or Confirmed Cases of ASA

Less than one-third and one-fifth of respondents reported handling a suspected or confirmed case of ASA, respectively. Suspicion was most commonly evoked by the type and location of the injury, an utterance by the owner, or behaviour of the owner. Participants reported similar reasons for confirming the case of ASA in addition to corroboration by police and animal welfare agencies. As seen in Table 1, all types of injuries common to ASA were either suspected or confirmed by participants in the study. For individuals who had been the VMP on a suspected

or confirmed case of ASA, the most common responses were speaking with a superior/supervisor, calling the police, and calling an animal welfare/protection agency. Two VMPs, however, reported that they had done nothing in response to the suspected or confirmed case.

3.3.4 Veterinary Medical Professionals' Perceptions of Criminal Justice Responses to ASA and Perpetrators

The mean score on the modified CATSO was 57.86 ($SD = 7.66$; range: 16-96). Mean scores were also computed for each of its four factors, which can be found in Table 2. To improve internal consistency, a single item was removed from both the social isolation and deviancy factors. Overall, participants scored in the midrange for each subscale indicating somewhat punitive attitudes towards those who commit sexual offences against animals.

On the total modified ABCS, the mean score was 49.05 ($SD = 18.90$) with a range of 39 to 195. Mean scores for each subscale are available in Table 2. One item was removed from the emphasis on cognitive elements factor to improve internal consistency. After this adjustment, Cronbach's alphas calculated for each subscale ranged from moderate to excellent. All novel additions (i.e., items that were not included on the ABCS) were measured on a 5-point scale anchored at 1 (strongly disagree) and 5 (strongly agree) and analyzed at the item level. The novel questions were "Instances where a human is sexually penetrated by an animal are less serious than when a human penetrates an animal" ($M = 1.61$; $SD = 0.97$); "People who have sexual contact with animals don't have satisfying relationships with other people" ($M = 2.68$; $SD = 1.17$); "An animal can uniquely understand a human's sexual needs" ($M = 1.18$; $SD = 0.67$); and "I am interested in animal-like activities (e.g., wearing a dog collar, being walked on a leash, wearing a saddle and/or bit)" ($M = 1.24$; $SD = 0.70$).

With respect to legal responses to ASA, therapy and incarceration were the most frequently endorsed options by survey participants. Just over three quarters of the sample (77.3%) agreed that individuals who commit acts of ASA should be imprisoned, with an average sentence length recommendation of 12.70 ($SD = 15.50$) years. A large majority (79.2%) felt that the current criminal justice response to those who commit ASA is too lenient. Ninety seven percent of the sample felt that individuals who commit sexual offences against animals should be barred from owning a pet or from working with animals. In terms of registration, 62% of participants felt that those who commit ASA should be placed on a public registry, 34.8% felt that they should be placed on a registry that is only accessible to the police, and only 3% not supporting some form of registration. Nearly all participants agreed that participants have a moral and/or legal responsibility to intervene when they suspect ASA (98.5%) and that veterinarians have a duty to report abuse to the authorities (95.5%). All participants agreed that VMPs should be required by law to report all cases of animal abuse (including ASA) to the authorities. Almost half of participants (47.7%) indicated that they did not feel confident providing testimony as an expert in criminal cases involving ASA.

3.4 Discussion

The present study explored VMPs' knowledge of and experience with ASA. Few professionals reported having training on ASA specifically and the majority of respondents indicated that they wanted more training. Although veterinarians with a specialty reported having slightly more training, generalists and specialists both reported dissatisfaction with their level of training in this domain. This study was the first study known to the authors to examine education on ASA specifically and the results appear to echo the broader literature on non-sexual abuse, with individuals reporting that there were very few courses offered and that, even if they

received education, they still felt unprepared to report and handle these cases (Sharpe and Wittum, 1990; Millman et al., 2005; AVMA Model Animal Welfare Curriculum Planning Group et al., 2017).

As anticipated, very few VMPs indicated that they had reported a suspected or confirmed case of ASA. This is in line with previous literature where, even when abuse is recognized, there is a lack of reporting (Monsalve et al., 2019). Many individuals did indicate that they had seen patients with injuries common to ASA (see Table 1) which, paired with a lack of knowledge among VMPs, could indicate that there is a risk of professionals not recognizing ASA—leaving their patients vulnerable to future abuse. Additionally, as in the non-sexual abuse literature (Landau, 1999), the majority (84%) of VMPs indicated that they had not received any information on reporting requirements for their province/territory/state. This lack of training on ASA and reporting requirements could explain why two participants in this study reported doing nothing in response to a suspected or confirmed case of ASA. Additionally, while not explored in this study, concerns about potential client reactions seem to be an important factor in whether or not VMPs report general abuse and may be important for ASA (Stolt et al., 1997). Future research should strive to examine which factors predict reporting of ASA specifically.

Although public attitudes towards convicted sexual offenders tend to be quite negative (Levenson et al., 2007; Olver and Barlow, 2010; Willis et al., 2010; Sparks and Wormith, 2020), the means observed in this study were closer to the midpoint of many of the scales indicating less hostile attitudes. While veterinarians are not necessarily involved in the criminal justice system, their attitudes seem to be more in line with criminal justice and counselling professionals who are generally punitive but endorse the capacity for change (Conley et al., 2011; Jones, 2013). This is interesting as, unlike criminal justice professionals, VMPs do not work with these

individuals and are more akin to victim service workers. Overall, scores on the modified ABCS were very low in the sample with many mean scores for scales falling near the minimum possible score. However, it is interesting to note that there were VMPs who scored closer to the maximum, indicating that while most vets do not hold these views there are professionals who hold views supportive of offending against animals and could potentially be perpetrating these behaviours.

Despite the fact that attitudes towards offenders on the CATSO were higher than expected, VMPs reacted punitively towards individuals who commit acts of ASA. The VMPs surveyed suggested that individuals who commit ASA should serve sentences in excess of a decade (well beyond the median sentence length for sexual offenders in general; Maxwell, 2017), that they should be barred from owning or working with animals, and that they should be placed on a public registry. These supportive views are quite similar to the public support seen for sex offender registries despite the fact that they do little to actually address or ameliorate the situation (Kernsmith et al., 2009; Schiavone and Jeglic, 2009; Comartin et al., 2013; Sparks and Wormith, 2020). These public animal abuse registries do exist in the United States and are not endorsed by the ASPCA (n.d.) as, like sex offender registries, they are not the most effective prevention strategy. Overall, VMPs were quite supportive of mandatory reporting, which was not in line with previous research that has indicated that fewer than half of the VMPs surveyed felt it should be their legal responsibility to report abuse or neglect (Donley et al., 1999). While this shift towards mandatory reporting is promising, almost half of all VMPs did not feel competent to act as an expert witness in cases that they might report.

Given the importance of VMPs in intervening in cases of ASA and limited practitioners trained in forensics in many parts of the world (Monsalve et al., 2019), improving education and

training related to ASA for all VMPs it of the utmost importance. General education on abuse has been shown to benefit from employing strategies such as the use of standardized client encounter scenarios (Englar, 2018) which could be very easily adapted to include cases of ASA. These standardized client scenarios can be very easily adapted to fit the context of the particular site that it is being implemented at and can test knowledge of specific reporting requirements in that region (see Englar [2018] for a full description of the scenario and its implementation).

3.5 Conclusion

The present study was the first to assess VMP knowledge and experience with ASA. Results suggest that a lack of training may be limiting the cases of ASA that are being reported. Overall, VMPs were keen to receive more information about ASA and unlike previous research, supported mandatory reporting laws. This is a promising development suggesting a willingness of VMPs to take a front-line stance in the fight against ASA. It is hoped that these results will encourage veterinary schools and professional associations to offer training in the recognition and reporting of ASA. Further, as mandatory reporting laws continue to gain traction, it is imperative that more jurisdictions need to join the 20 U.S. states that provide legal protections for VMPs so that they are not discouraged from reporting suspected abuse.

3.5.1 Conflict of Interest Statement

None of the authors has any financial or personal relationships that could inappropriately influence or bias the content of the paper.

3.5.2 Acknowledgements

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Table 3-1

Types of injuries encountered by veterinary medical professionals

Type of Injury	Suspected	Confirmed
External vaginal injuries	6	10
Penile injuries	7	18
Testicular injuries	5	11
Rectal injuries	8	17
Perianal injuries	8	10
Buccal injuries	2	4
Injuries to the throat	5	10

Table 3-2

Means and ranges for the CATSO and ABCS

Measure	Alpha	<i>M</i> (<i>SD</i>)	Range
CATSO	0.79	57.86 (7.66)	16-96
Social isolation	0.87	13.45 (3.66)	4-24
Capacity to change	0.84	15.90 (5.46)	5-25
Severity/dangerousness	0.45	15.80 (2.94)	4-24
Deviancy	0.72	6.50 (1.97)	2-12
ABCS	0.97	49.05 (18.90)	39-195
Sexual objectification of animals	0.92	14.79 (6.28)	11-55
Justification	0.95	5.81 (2.89)	5-25
Animals as sexual agents	0.93	4.96 (2.17)	4-20
Denial of sex offender status	0.74	9.08 (3.80)	6-24
Emphasis on cognitive elements	0.80	3.60 (1.66)	3-15
Power and entitlement	0.76	7.49 (2.83)	5-25

CATSO, Community Attitudes Toward Sex Offenders Scale; ABCS, Abel Becker Cognition

Scale; n = 63

CHAPTER 4

4. MEASUREMENT AND CORRELATES OF ZOOPHILIC INTEREST IN AN ONLINE COMMUNITY SAMPLE²

Although chronically under-researched (Beetz, 2004), human sexual interest in nonhuman animals is not a new phenomenon. Cave paintings depicting acts of human-animal sexual activity have been discovered indicating that it has existed, or at least was depicted, as early as the Iron and Bronze Ages (Dekkers, 1994; Gregersen, 1983; Taylor, 1996). Sexual interest in animals was also evident in Roman society as there are accounts that brothels existed for the sole purpose of offering animal sexual services (Schmidt, 1969). Animals had even been trained to have sex with women for the Olympic Games (Dekkers, 1994; See Beetz, 2004, for a full historical review). From these historical accounts, it is evident that the acceptability of human sexual contact with animals varies across time periods and cultures. Sexual interest in and contact with animals has been referred to a variety of terms (e.g., bestiality, opportunistic zoophilia, necrozoophile/necrozoobestialist; zoophilia/classic zoophilia, zoophilia by proxy, zooerasty, and zoosadism) each with their own definition, making the issue difficult to classify and systematically study (Stern & Smith-Blackmore, 2016). A review of terminology by Beetz (2008) makes a point of differentiating the term *zoophilia*—an enduring sexual attraction to animals with both physical and emotional elements—from *bestiality*—which refers to physical human-animal sexual contact.

² As of the submission of this dissertation (June 25, 2021), this article has been submitted for review in a peer-reviewed journal. This article is co-authored with Mark Olver. The majority of the writing and analysis was performed by myself (AMZ). Mark Olver provided supervision of this project, and contributed to the analysis and interpretation of this study.

There is no consensus on the legal response to sexual contact with animals. Recently, Denmark was the site of legal and political debate over whether sexual activity with animals should be criminalized with some arguing that the rationale for banning the practices was not very persuasive (Christiansen, Greve, & Sandøe, 2009). In the United States, in 1993, seven states had legislation that classified the abuse of animals in some form as a felony offense; by 2010, the number had increased to 46 states, indicating a strong trend toward valuing animal welfare (ALDF, 2017). Currently, bestiality is now illegal in 44 states (ALDF, 2017) and is also illegal under US Armed Forces Code (10 U.S. Code, 2016). The Canadian Criminal Code (CCC) Sec. 160(1) identifies bestiality as an indictable offense with a maximum prison term of up to 10 years (Criminal Code, 1985; Gacek & Jochelson, 2017). The CCC did not provide a definition of bestiality and, in fact, in *R. v. D.L.W.* (2015), the Supreme Court of Canada concluded that Canada's bestiality laws did not strictly prohibit sexual acts of a non-penetrative nature with animals. To address this definitional inconsistency, Bill C-84 was passed to provide an explicit legal definition of bestiality (Harris, 2019). Intended to afford more comprehensive protections from animal abuse, the expanded legislation identifies all sexual contact between a human and an animal, penetrative or not, as an act of bestiality with the same sentencing provisions as Sec. 160 CCC (Department of Justice, 2018).

4.1.1 Prevalence of Zoophilia and Bestiality

As there has been a lack of systematic and scientific study of sexual interest in and contact with animals, there are very few studies that investigated the prevalence of these behaviours (Beetz, 2004). Hunt (1974) reported that 4.9% of men and 1.9% of women had engaged in sexual contact with animals which is slightly lower than the 8% reported by Kinsey, Pomeroy, and Martin (1948). Of the men from Hunt (1974) who reported engaging in sexual

contact with animals, approximately 80% of them did so prior to the age of 15 and almost half of these individuals reported that their sexual contact was with dogs. In a sample of prison inmates, Hensley et al. (2006) reported that 6% of inmates in maximum and medium security prisons reported a history of childhood bestiality and, more recently, Henderson et al. (2011) reported 20% of inmates had a history of sexual contact with animals. In terms of individuals reporting a sexual interest in animals, Miletski (2017) found that 83% of men with zoophilic interest (also referred to as “zoos”) reported sexual activity with an animal at an average rate of 2.96 times per week; 64% of men masturbated the animal, 42% fellated the animal, and 34% were anally penetrated by the animal. For women, 64% reported that they masturbated the animal, 55% received oral sex, and 45% were penetrated vaginally (Miletski, 2017). In a sample of men who reported frequenting sadomasochism clubs in Finland, Sandnabbe et al. (2002) found that 7.4% of participants reported at least one sexual experience with an animal. The term zoosadism has been used to connote persons who receive sexual excitement from inflicting pain or discomfort on animals. To this end, Beetz (2002) reported that 5.3% of men practicing bestiality reported harming an animal and almost twice as many (9.7%) used force in some capacity during sexual relations. In all, prevalence rates of bestiality are generally low in the population at large with slightly higher base rates reported in atypical samples.

4.1.2 Classification Typologies for Sexual Interest in Animals

Although there is a relative abundance of case studies examining individuals with sexual interest in animals (e.g., Bhatia, Srivastava, & Sharma, 2005; Earls & Lalumière, 2002; Wilcox, Foss, & Donathy, 2015) with many focusing on individuals in forensic settings (Holoyda, 2017), there has been a lack of systematic review of the characteristics of individuals with a sexual interest in animals. Currently, sexual interest in animals is classified as a “Paraphilia Not

Otherwise Specified” in the Diagnostic and Statistical Manual of Mental Disorders 5th edition (DSM-5; American Psychiatric Association, 2013). Moreover, the World Health Organization’s (WHO) International Classification of Diseases 10th edition (ICD-10; World Health Organization, 2016) only mentions sexual activity with animals in passing when discussing patterns of sexual preference in the context of other paraphilias. This means that sexual interest in animals is not specifically diagnosed in either of the principal mental health diagnostic manuals, in part because an exhaustive list of all possible paraphilias is not practicable (e.g., as would be the case for a list of all possible specific phobias). Rather, a paraphilia in general needs to be diagnosed, and then the object or source of paraphilic arousal, identified. Currently, a primary means of assessing sexual interest in animals is through clinical interview (Bhatia et al., 2005) or penile plethysmography (Earls & Lalumière, 2002); there are no specific psychometric measures known to the authors.

There have been two noteworthy attempts at creating a classification system differentiating persons with preferential zoophilia from those engaging in acts of bestiality. First, Earls and Lalumière (2002) outlined the following criteria for preferential zoophilia and concordant bestiality, which they estimated should be a statistically rare phenomenon:

“(1) the individual reports intense and recurrent sexual fantasies and urges about having sexual interactions with nonhuman animals, or reports repeated sexual interactions with nonhuman animals accompanied by strong sexual arousal; (2) the individual chooses sexual interactions with nonhuman animals even when willing human partners are available; (3) using objective measures, the individual shows greater sexual arousal to images of members of a nonhuman species than to images of humans, or shows greater sexual arousal to descriptions of sexual

interactions with members of a nonhuman species than to descriptions of sexual interactions with humans” (Earls & Lalumière, 2002, p. 84).

Second, Aggrawal (2011) subsequently developed a nuanced and comprehensive classification system for zoophilic individuals informed by a classification system for necrophilia (Aggrawal, 2009), arranged along a 10-point class continuum of behavioral extremeness: Class I, “human-animal role-players” engage in animal role plays with humans in their sexual activity (e.g., pet play, pony play) but prefer human partners and have no animal sexual contact; Class II, “romantic zoophiles,” keep animals as pets for psychosexual stimulation but do not have animal sexual contact; Class III, “zoophilic fantasizers” have masturbatory sexual fantasies about animals and/or masturbate while animals are present; Class IV, “tactile zoophiles” engage in physical contact through stroking and fondling the genital, perianal, and anal region of an animal; Class V, “fetishistic zoophilia”, preserve parts of animals (e.g., furs) to be used as fetishistic objects for their zoophilic activities; Class VI, “sadistic bestials,” generate sexual excitement from physical injury and pain to animals; Class VII, “opportunistic zoosexuals,” prefer human partners but engage in sexual activity with animals opportunistically; Class VIII, “regular zoosexuals” do not enjoy sexual activity with humans and have a sexual preference for and emotionally close connection to nonhuman animals that they describe as love; Class IX, “homicidal bestials,” kill animals expressly for the purpose of necrozoophilia (i.e., sexual intercourse with animal corpses); and Class X, “exclusive zoosexuals” have sexual activity primarily or exclusively with animals and prefer animals to humans, consistent with Earls and Lalumière’s (2002) criteria for exclusive zoophilia.

Aggrawal (2009) notes that a detailed history is essential to classify an individual into a particular class of zoophilic interest, which may pose challenges as individuals may not feel comfortable disclosing stigmatized information to a clinician. Further compounding the issue, many clinicians are uncomfortable asking about sexuality in general (Miller & Byers, 2012) and may be exceptionally uncomfortable openly discussing sexually taboo topics such as sexual interest in, and activity with, animals. As such, these behaviors and any associated stress or issues associated with them may be going undetected and untreated.

Finally, although not explicitly mentioned in the classification system, the adjacent concept of Furryism— individuals attracted to anthropomorphized animals and/or the idea of being an anthropomorphised animal rather than being sexually attracted to animals themselves (Hsu & Bailey, 2019)—may fit under class I in Aggrawal’s (2009) system. While many of the behaviors and interests espoused by those in the Furry community seem quite similar to the behaviors seen in class I (e.g., behaving like animals or encouraging sexual partners to behave like animals), it could be argued that attraction to nonhuman animals and anthropomorphized humans are conceptually distinct. Being able to differentiate the two and understanding the difference between how the general population views animals versus those with a zoophilic interest is of considerable importance.

4.1.3 Rationale for the Current Study

As there are very few resources available to assess human sexual interest in nonhuman animals in individuals beyond a clinical interview or phallometry, it is challenging to conduct research with individuals with a sexual interest in animals outside of a forensic setting. While zoophilia may be a statistically infrequent pattern of sexual interests and behaviors—although it is difficult to ascertain true base rates owing to a lack of validated measures of the zoophilia

construct to drive research—the development and refinement of measures of zoophilic interest can help inform theory, research, clinical practice, and understanding. The central aim of the present study was to examine the measurement and correlates of sexual attraction to nonhuman animals through the development and refinement of psychometric and visual stimulus measures of animal sexual interest. The study also sought to distinguish sexual attraction to animals from sexual attraction to anthropomorphized animals (i.e., furies) and nonsexual attraction to animals (e.g., finding an animal “cute”). Three research questions were proposed:

1. What is the latent structure of zoophilic interest, and can a self-report psychometric measure of this nature be developed and refined?
2. How well do psychometric indicators of sexual interest in animals and visual ratings of animal attractiveness discriminate persons with zoophilic interests from those individuals without zoophilic interests?
3. What is the amount of conceptual overlap between zoophilia and categories of paraphilic behaviors, including furryism; that is, how is zoophilia conceptually distinct, and its measurement, psychometrically distinct?

4.2 Method

4.2.1 Participants

Participants were recruited from social media (i.e., Twitter and Facebook) and students were recruited in exchange for course credit. Additionally, in order to reach the target population for this study, postings were made on forums utilized by individuals with an interest in animals (e.g., specific subreddits and Zooville.org). Initially, 2,028 individuals responded to the survey, but 800 were removed due to missing data—leaving a final sample of 1,228 respondents. In light of these recruitment strategies, 72% and 35% of the total sample identified as zoophiles and

furries, respectively. The mean age of participants was 25.05 (SD = 9.75) years and participants were mostly men (67%), heterosexual (38.8%), Caucasian (77.5%), completed at least some university (47.4%), lived in an urban centre (72.4%) and were liberal (48.5%). Two-thirds (66.7%) of the sample reported owning a pet and 10% having employment that brought them in contact with animals.

4.2.2 Procedure

This study was reviewed and approved by the University Behavioural Research Ethics Board (Beh-REB #1669). Participants were recruited using posts on social media and through targeted posts on forums that are popular with our target demographic. There were two versions of the survey available for participants; one that was made for the general public who may or may not have an interest in animals and one developed for an online community of persons identifying as having zoophilic interest. For the latter, consultation with and feedback from Zooville.org forum moderators was used to develop a survey and stimulus materials better suited to the online zoophilia community (see Appendix D for Zooville demographics). Participants were offered a \$5 CAD gift card in exchange for their participation. All participants completed the survey in an online platform. Following their provision of consent to participate, participants completed the study measures below and then were thanked for their participation.

4.2.3 Measures

4.2.3.1 Animal Visual Stimuli

Participants reviewed images of animals and asked to rate each picture on one of three dimensions of in terms of: 1) level of “cuteness”, 2) sexual attractiveness (i.e., a desire to have sexual contact), and 3) romantic attractiveness (i.e., a deep desire to have a committed, romantic relationship, not necessarily with a sexual component); each were rated on a 7-point scale

anchored at 1 (not at all) and 7 (very). Images were all marked for commercial reuse on Google Images and included dogs (13), horses (11), cats and exotics (11) fowls and small animals (9), sheep and goats (8), pigs (5), cows (4), moose and deer (4), camelids (3), and dolphins (2). The types and number of animals selected were based on reported targets of interest in previous literature (Hvozdk, 2006; Imbschweiler et al., 2009; Miletski, 2002) and feedback from the forum moderators at Zooville.org.

4.2.3.2 Sexual Interest in Animals-Self-Report (SIA-SR)

The Sexual Interest in Animals- Self-Report (SIA-SR) is a psychometric paper and pencil measure of sexual interest in nonhuman animals (see Appendix C). Participants were asked to provide information to a series of questions about their interest in animals on a 7-point scale anchored at disagree and strongly agree. Questions were developed based on the typologies developed by Aggrawal (2011) and Earls and Lalumière (2002) and refined based on feedback from forensic psychology student and faculty researchers and the Zooville.org moderators. The original questionnaire included 39 items and included items such as “I like to act like an animal during sexual intercourse or foreplay with humans,” “I masturbate while watching animals copulate,” “I wouldn’t turn down the opportunity to have sex with an animal,” and “I get sexually excited by media (e.g., drawings, videos, gifs) of anthropomorphized animals.”

4.2.3.3 Multiple Paraphilic Interests Scale

Participants were also asked to complete the Multiple Paraphilic Interests Scale (MPIS; Smallbone & Wortley, 2004) to provide information about any potentially paraphilic interests. The MPIS asks participants to provide information about their behaviours over the past six months using the category “never,” “once or twice,” and “three or more times.” For the purposes

of this study, the option of “ever” was added to the options in order to capture any instances of the behaviours that occurred outside of the 6-month window.

4.2.4 Planned Analyses

Data analyses focused on the refinement of the SIA-SR item content and factor structure and examining the discriminating properties of this measure and animal visual stimuli for persons who self-identified as having zoophilic interests vs. those who did not. Most analyses were conducted with SPSS version 25.0 with the exception of the EFA, which was conducted using Mplus 7.4 (Muthén & Muthén, 2015). First, a principal components analysis (PCA) followed by exploratory factor analysis (EFA) was conducted on SIA-SR item scores. PCA with Varimax rotation was conducted to approximate the factor structure and identify candidate items for inclusion prior to conducting EFA in Mplus using the default (for continuous variables) Maximum Likelihood model estimation to extract the factors and Geomin oblique rotation. Cases were retained if they were missing no more than 25% of the SIA-SR items (< 5% of the data [4.8%] were missing for 1,223 cases). In addition to scrutinizing the magnitude and pattern of loadings, fit indices (CFI and RMSEA) were examined for variations on the factor solution, in addition to conducting parallel analysis to guard against overextraction.

Second, a series of correlation analyses were conducted to examine associations between self-reported sexual interest in animals, via the SIA-SR, and stimuli ratings (i.e., sexual attractiveness, romantic attractiveness, and cuteness) of the different animal categories (i.e., dogs, cats, fowl, cows, horses, pigs, and sheep). Correlation magnitudes between continuous variables were interpreted per the conventions of Cohen (1992) in which values of .10, .30, and .50 correspond to small, medium, and large effects, respectively. Owing to missing data, item averages were computed to generate composite scores for the SIA-SR total and factor scores, as

well as the animal stimulus ratings. Third, base rates of paraphilic behaviors from the MPIS scale were examined, as well as self-reported furryism (not on the MPIS but relevant to zoophilia), and their associations with self-reported zoophilic interest, via chi square test and odds ratios (ORs). ORs were selected given the low base rate of rare paraphilic behaviors (e.g., necrophilia) which can attenuate other measures of association that are base rate dependent. Based on the d_{cox} index from Sánchez-Meca et al. (2003) to convert d equivalents from ORs, OR values of 1.39, 2.28, and 3.74 were interpreted to characterize small, medium, and large effects, respectively.

Fourth, to assess the predictive accuracy, and hence discriminating properties, of the SIA-SR total item ratings and factor composites for self-reported zoophilia, Receiver Operator Characteristic (ROC) area under the curve (AUC) statistics were computed. AUCs range from 0 to 1.0, and in this context, represent the probability that a randomly selected person with zoophilia has a higher score on a given animal interest measure than a randomly selected person without zoophilia. With values of .50 representing chance level discrimination, AUCs of .56, .64, and .71 represent small, medium, and large effects, respectively, and directly correspond to d values of .20, .50, and .80, respectively (Rice & Harris, 2005). We also compute d to report the difference between zoophilic and non-zoophilic persons in standard deviation units on the measures. Finally, we conducted a series of logistic regressions to examine the incremental predictive validity of self-reported animal sexual interest ratings (via the SIA-SR) and animal stimulus ratings for binary zoophilia. The results of the AUC/ d analyses informed the selection and ordering of predictors. In short, the regressions aimed to examine the relative discriminating properties of visual stimulus ratings vs. psychometric self-report ratings in predicting self-reported zoophilia.

4.3 Results

4.3.1 Latent Structure of Sexual Interest in Animals: Factor Analysis

An EFA was conducted on the items from the SIA-SR to identify the latent constructs that underpin self-reported sexual interest and hence, possible subscales. The initial PCA, coupled with scrutiny of item-total correlations suggested four possible candidate factors with 37 eligible items loading; items that did not load above .32 (i.e., accounting for less than 10% of the variance loading on a variable) and/or had weak item-total correlations (e.g., $r < .10$) were removed. EFA followed to refine and finalize the factor solution using Mplus with default Maximum Likelihood model estimation to extract the factors and Geomin oblique rotation. A four-factor model without cross loadings provided adequate fit to the data: CFI = .867, RMSEA = .093, 95%CI (.091, .095). Although a five-factor model provided stronger fit (CFI > .90), the results of parallel analysis suggested that the fifth factor was no larger than one that would be generated at random (eigenvalues = 0.998 vs. 1.240, respectively), and so a four factor model was retained to generate the SIA-SR subscales.

The four factors were labeled: *Zoophilia* (20 items, eigenvalue = 16.597, $\alpha = .88$), *Opportunism* (5 items, eigenvalue = 3.694, $\alpha = .77$), *Zoosadism* (5 items, eigenvalue = 2.767, $\alpha = .72$), and *Furryism* (7 items, eigenvalue = 2.140, $\alpha = .89$). Table 1 presents the factor loadings for each item of the scale. The Zoophilia scale contains items that indicate a general sexual interest in nonhuman animals and desire to have sexual contact with them. The Opportunism scale includes items that indicate a sexual preference for humans, but a willingness to have sexual contact with nonhuman animals if an opportunity is present. The Zoosadism scale captures sexual attitudes, urges, preferences, and behaviors regarding the pain and suffering of nonhuman

animals and/or having sexual contact with dead animals. Finally, the Furryism scale contains items related to sexual excitement with anthropomorphized animals and fursuits.

4.3.2 Bivariate Associations for Self-Reported Animal Sexual Interest and Attraction

Ratings

Table 2 reports bivariate associations between SIA-SR subscale and overall ratings with animal stimulus attractiveness ratings by the three rating domains. Given the large sample size, most correlations with the exception of those that were trivial in magnitude ($r < .06$) were significant. Several themes were evident. First, dog and horse sexual and romantic attractiveness ratings had the largest and most consistent associations with SIA-SR item scores. Dog sexual and romantic attractiveness ratings had large correlations ($r = .52-.70$) with the Zoophilia and Zoosadism subscales and the overall item average, and medium correlations ($r = .38-.45$) with the Opportunism and Furryism subscales. Moreover, horse sexual and romantic attractiveness ratings had large effects ($r = .51-.57$) for Zoophilia subscale and overall item average, and medium associations ($r = .33-.41$) with the Opportunism and Furryism subscales. Second, for the other animal stimulus categories, the associations with self-reported sexual interest in animals tended to be smaller in magnitude. Any associations approaching medium in magnitude were for the cow, pig, and sheep ratings with the Zoophilia and Zoosadism subscales, as well as the overall item average. Cat and fowl attractiveness ratings in general had small to weak associations with self-reported animal sexual interest. Third, self-report ratings of animal “cuteness” were much more weakly associated with any of the dimensions of self-reported sexual interest in animals; that is, respondent ratings of an animal picture’s “cuteness” had little

relation to whether or not individuals would report also being sexually interested in animals along one of the scales' latent dimensions.³

4.3.3 Zoophilia and Other Self-Reported Paraphilic Behavior

Individuals in the sample reported engaging in a number of paraphilic behaviors in the last 6 months as reported in Table 3, the odds of which ranged from slightly higher (OR = 1.30) to substantially higher (OR = 5.45) among zoophilic persons. Zoophilic identification was significantly associated with self-reported involvement in all paraphilic behaviors with the exception of telephone scatologia. The largest effects were for furryism and necrophilia, representing, respectively the most frequent and least frequent categories within the zoophilia group, and both of which had a more than fivefold increase in the odds of being reported in the zoophilic group. A large effect was also shown for public masturbation, associated with a near four times increased odds among zoophilic persons. Small to moderate effects (OR = 1.66-2.84) representing a near two to three times increased odds for each of the remaining categories of paraphilic behavior with self-reported zoophilic identification, except for telephone scatologia.

4.3.4 Predictive Accuracy of Animal Sexual Interest and Attraction for Self-Reported Zoophilia

As seen in Table 4 the total score and all subscales of the SIA-SR had exceptionally high discrimination of persons reporting vs. not reporting zoophilic interest (AUCs $\geq .85$, d_s 1.29-3.18). A cut score of approximately 1 SD above the mean for non-zoophilic persons (i.e., total score > 110 or item average ≥ 3) correctly classified 93.1% of cases (1,120/1,203), $\chi^2(1, N = 1,203) = 823.23$, $\phi = .83$, $p < .001$. Moreover, dog and horse sexual attractiveness ratings each

³ Ratings of sexual attractiveness, romantic attractiveness, and cuteness were all positively correlated across animal stimuli. Sexual attractiveness was strongly correlated with romantic attractiveness ($r = .77$, $p < .001$) and all others had medium correlations ($r = .42-.46$, $p < .001$) (see Tables 4-S1-S3 in Appendix E).

had excellent discrimination for self-reported zoophilic identification (AUCs > .80, $d > 1.0$). Cow sexual attractiveness, sheep sexual attractiveness, dog romantic attractiveness, and horse romantic attractiveness had moderate to large effects for self-reported zoophile identity (AUCs > .70, $d > .70$). All measures of cuteness and other measures of attractiveness had small or subthreshold effects in discriminating self-reported zoophilic persons from non-zoophilic persons (all AUCs < .59).

4.3.5 Logistic Regression: Prediction of Binary Zoophilic Identification by SIA-SR and Animal Stimulus Ratings

Table 5 reports a series of logistic regressions examining predictor combinations for binary zoophilia group membership. For the SIA-SR (model 1), only the Zoophilic subscale incrementally predicted binary zoophilic identification. For the animal stimulus sexual attractiveness ratings (model 2), dog and horse ratings of sexual attractiveness each significantly and uniquely predicted zoophilia, controlling for all other rating categories, while cat and fowl sexual attractiveness ratings were inversely associated (likely attributable to low endorsement), and no other rating categories were significant. The same pattern held for romantic attractiveness ratings (model 3). Specifically, dog and horse attractiveness ratings (sexual or romantic) each independently predicted a 1.5 to 3.6 increased odds of endorsement of zoophilia identification, suggesting that they represent different patterns of zoophilic interest. When sexual vs. romantic attractiveness ratings for dog and horse stimuli were pitted against each other (model 4), the sexual attractiveness ratings incrementally predicted zoophilia group membership, while the romantic attractiveness ratings did not. The final regression model (model 5), demonstrated that when self-reported sexual interest in animals and sexual attraction ratings were compared, the

Zoophilia subscale of the SIA-SR (Block 2) remained the only variable uniquely predictive of zoophilia group membership.

4.4 Discussion

The present study examined the measurement and correlates of zoophilic interest in a large online community sample, two thirds of whom identified as having a sexual attraction to animals. Our key aims were to identify the primary domains of sexual attraction to animals, visual stimuli relevant to animal sexual interest, conceptual overlap with other paraphilias, and some of the predictive indicators of zoophilic interest in this largely unstudied field. The results contribute to a greater understanding of the sexual interest patterns for persons with zoophilia and have implications for theory, future research, and clinical practice.

4.4.1 Latent Structure of Zoophilic Interest

In order to determine the latent constructs that underpin self-reported sexual interest and possible subscales of the SIA-SR which may represent these constructs, an EFA was conducted; the results identified four factors labeled *Zoophilia*, *Opportunism*, *Furryism*, and *Zoosadism*. The *Zoophilia* subscale contains items that indicate a sexual interest in nonhuman animals and the desire to have sexual contact with them. Generally, the items included on this scale indicate a preferential sexual attraction to nonhuman animals over humans and a clear desire for sexual and romantic relationships. Zoophilia was the largest subscale with 20 items, so there is some variability in which items could be endorsed and therefore the magnitude of these preferential attitudes. Opportunism included items that indicate a preference for humans, but a willingness to have sexual contact with a nonhuman animal if an opportunity were to arise, making it distinct from the Zoophilia subscale. Items on the Zoosadism subscale indicated attitudes supportive of both zoosadism proper (i.e., a sexual attraction to non-human animals in pain) and

zoonecrophilia specifically (i.e., a desire to have sexual contact with dead nonhuman animals). Finally, the Furryism subscale contains items related to an interest in anthropomorphized animals and fursuits; this subscale also contained items related to a desire for human partners to act like animals as well (e.g., via pet play, pony play, ponyism, or pup-play”).

These subscales are consistent with previous classification systems (Aggrawal, 2011; Earls & Lalumière, 2002) which differentiate between activities to classify level of interest. Specifically, Aggrawal (2011) has classification for “opportunistic zoosexuals” (Class VII) and “homicidal bestials” (Class IX) which roughly correspond to the *Opportunism* and *Zoosadism* subscales in the current scale. The *Zoophilia* subscale covers many of the behaviors captured in Aggrawal’s (2011) classification system. As predicted, furryism does seem to be a separate phenomenon with a distinct subscale capturing this construct—the *Furryism* subscale—although there does seem to be some overlap between those who endorse zoophilia and those who endorse furryism. As posited previously, furryism does seem to overlap with the Aggrawal’s (2011) Class I (human-animal role-players) classification as, in addition to behaviors typically associated with furryism (i.e., wearing a fursuit, having sexual contact with others in fursuits, and consuming furry media; Roberts et al., 2015), the subscale also included behaviors described in Class I of Aggrawal’s (2011) system (e.g., roleplaying animal-like behavior during human sexual encounters and a desire for human partners to reciprocate such behaviors).

4.4.2 Predictive Indicators of Self-Reported Zoophilia

In order to assess the predictive accuracy and discriminating properties of the SIA-SR and visual stimulus ratings for binary self-reported zoophilia, ROC analyses were conducted. AUCs for the total scale and all subscales of the SIA-SR had excellent discrimination for zoophilic individuals (Rice & Harris, 2005). When entered into a logistic regression, only the

zoophilia subscale was predictive of zoophilic self-identification, leading to a need for further research into the other subscales. Although the discrimination properties of the Zoosadism subscale for self-reported zoophilia was excellent, this subscale merits further exploration as individuals with zoophilic interest are not a homogenous group. While some individuals undoubtedly use force or harm during their sexual acts with animals, this tends to be a minority compared to the large number of individuals who engage in sexual practices intended to minimize the potential for physical injury or discomfort to the animal (Beetz, 2005). Moreover, our main source of recruitment may have contributed to this lack of discriminatory capability for zoosadism/necrophilia specifically as our main source for recruiting individuals who identify as zoophilic, Zooville, tends to focus on “ethical practices” (ZTHorse, personal communication, August 2020).

The people in this survey endorsed myriad animal sexual interests from the comprehensive stimulus set, but the endorsement of sexual interest in horses and dogs was most prominent, while attraction to cats and fowl tended to be low, and sexual attraction to pigs, cows, and sheep tended to be somewhere in the middle. Dog and horse sexual and romantic attractiveness ratings also had the largest and most consistent associations with SIA-SR item scores. The popularity of the dog and horse images is unsurprising as previous literature has confirmed the popularity of these animals as sources of sexual interest (Munro & Thrusfield, 2001; Miletski, 2002; Williams et al., 2008). While animal stimulus ratings of sexual attractiveness, romantic attraction, and cuteness were moderately intercorrelated, they clearly represented distinct underlying phenomena. Sexual and romantic attractiveness ratings discriminated between zoophilic and non-zoophilic persons well, but cuteness did not; whether somebody has zoophilia or not, a “cute” dog is a “cute” dog. The results of logistic regression,

however, showed that sexual attractiveness ratings trumped romantic attractiveness ratings in the prediction of binary zoophilia; dog and horse sexual attractiveness ratings each independently predicted a 1.7 to 2.5 increased odds of endorsement of zoophilia identification controlling for romantic attraction. The implications are that while romantic attraction (i.e., animals as romantic partners) appears to be one component of zoophilia, this has much overlap with sexual attraction.

Interestingly, while domains of visual animal sexual attractiveness and self-reported domains of sexual interest predicted binary zoophilic identification, the lone incrementally significant predictor was the Zoophilia subscale from the SIA-SR, with each one-point increase in average item endorsement corresponding to a 4.4 increase in the odds of zoophilic identification, controlling for other model predictors. These results demonstrate that a psychometrically refined measure of zoophilic interest, such as the 20-item Zoophilia subscale, has strong discriminating power for self-reported zoophilia over and above other indicators.

4.4.3 Zoophilia, Furryism, and Paraphilias

The online zoophilia community appears to be a large and well supported international community of persons who share a sexual attraction to animals. Our research also demonstrated that the presence of self-reported zoophilia coincides with the endorsement of other paraphilic behaviors, with the largest associations being with furryism (which had a high base rates) and necrophilia (which had a very low base rate). Sexology research has found that paraphilias tend to be intercorrelated, as do specific fetishes (Seto et al., 2014). The conceptual overlap with furryism, however, bears further mention. Zoophilia was correlated with furryism; however, most persons with zoophilia were not furies, and while furryism was correlated with indicators of zoophilia, these associations were decreased to non-significance after controlling for self-

identified zoophilia. Thus, the link between furryism and these zoophilic indicators are only by virtue of shared variance with zoophilia.

4.4.4 Strengths, Limitations, and Future Research Directions

The present study has a number of strengths and limitations with implications for future research and practice. First, the sample included in this research was mainly composed of heterosexual, White men with university degrees and liberal views, leaving those individuals of other diverse backgrounds potentially less well understood in the area of human-animal sexual interest. A further study limitation is that zoophilia was assessed via self-report identification, rather than by a third party such as a registered clinician with expertise in diagnosis and human sexuality. This concern is offset, however, by the anonymous nature of the survey and research access to people in the zoophilia online community, which likely increases the veracity of self-identification, and are notable strengths of the study. Additional strengths are the level of consultation provided by the Zooville community in selecting and refining the psychometric and visual stimulus measures of animal sexual interest (increasing internal and construct validity), the level of enthusiasm by the online community to participate in the present research, as well as a large sample size that aids generalizability and statistical power.

There are also research and potential practice implications. First, a cut score approximately 1 SD above the mean on the SIA-SR overall correctly classified 93% of individuals by zoophilic identification; similar results would be achieved using the 20-item Zoophilia subscale alone and the 1 SD criteria (i.e., item average around 3). The results suggest that the measure and its subscale could have utility for research or clinical application to accurately classify individuals by zoophilic interest, bearing in mind that as with all self-report measures, the potential for impression management and faking always exists. (Indeed, there were

a very small number of individuals declaring zoophilic interest who had low scores, as well as individuals denying such interest with very high scores.) Further, the image ratings of these animal images (available upon request) provide a potential stimulus set for future research intended to measure interest in animals as an alternative to phallometry.

Moreover, the latent structure of the SIA-SR and the overlap between zoophilia and different categories of paraphilic behavior indicate the heterogeneity of this phenomenon and the potential for different latent profiles or latent classes (e.g., zoophilic vs. zoosadistic). Although this exploration was outside the scope of the present study, future research using latent profile analysis on the zoophilia indicators in the present study could identify different profiles or subgroups. Taken together, the results of this study indicate that zoophilia is a very complex phenomenon and those individuals with a sexual interest in animals are not a homogenous group. It is hoped that these findings and the resultant scale will help to facilitate more research into the area and will help to stimulate research and bolster understanding of individuals with sexual interests in animals.

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Table 4-1

Sexual Interest in Animals Self-Report Factor Loading Matrix

Item	Zoophilia	Opportunism	Zoosadism	Furryism
1. I am excited by the thought of having sexual contact with animals	0.891*	-0.226*	0.005	-0.005
2. I like my human sexual partners to act like an animal, for instance, through pet play, pony play, ponyism, or pup-play.	0.093*	-0.056*	0.042*	0.624*
3. I like to act like an animal during sexual intercourse or foreplay with humans	0.138*	-0.029	0.031	0.584*
4. I keep a pet for romantic companionship	0.729*	0.482*	-0.002	0.004
5. I allow the animal to show consent to sexual intercourse (R)	-0.737*	0.033	0.197*	-0.016
6. I would not harm an animal during sexual intercourse (R)	-0.348*	0.063	0.433*	0.007
7. I feel romantic love for my pet, but I would never have sex with them	0.823*	0.207*	-0.024	0.031
8. I fantasize about sexual acts with animals	0.878*	-0.229*	0.006	-0.002
9. I masturbate while thinking about animals	0.862*	-0.082*	0.033*	0.033*
10. I masturbate while animals are present to heighten sexual arousal	0.667*	0.088*	0.176*	0.041
11. I masturbate while watching animals copulate	0.682*	0.066*	0.038	0.154*
12. I masturbate while watching pornography featuring animal-human sexual contact	0.770*	-0.341*	0.031*	-0.004
13. I watch pornography featuring animal-human sexual contact	0.785*	-0.338*	0.026*	-0.009
14. I have dreams involving sexual acts with animals	0.820*	-0.012	0.045*	0.018
15. I fantasize about sexual acts with animals, but I would never have sex with an animal (R)	0.115*	0.435*	0.155*	-0.197*
16. I'm sexually excited by touching the genital and anal regions of animals	0.871*	-0.076*	0.055*	0.014
17. I rub my genitals on animals for sexual to heighten sexual excitement	0.631*	0.101*	0.169*	0.056*
18. I get sexually excited by objects that remind me of animals (e.g., furs, animal teeth, reptile skin)	0.198*	0.037	0.083*	0.410*

19. I get sexually excited by animals in pain	0.037	-0.048*	0.633*	0.026
20. I inflict pain on animals to receive sexual to heighten sexual excitement	0.013	-0.049*	0.754*	-0.012
21. I would have sex with a human if they were available	0.800*	-0.302*	0.013	0.000
22. I prefer to have sex with humans (R)	-0.099*	0.738*	0.065*	-0.128*
23. I wouldn't turn down the opportunity to have sex with an animal	0.798*	-0.229*	0.063*	-0.028
24. I have no romantic interest in animals but I would still have sex with them (R)	-0.119*	0.729*	-0.143*	0.032
25. I prefer to have sex with animals rather than humans	0.917*	0.383*	0.076*	-0.078*
26. I love animals romantically	0.864*	0.501*	-0.115*	0.028*
27. I get "crushes" on animals	0.846*	0.372*	-0.074*	0.044*
28. I prefer to have sex with dead animals	0.020	-0.008	0.535*	0.045
29. I get sexually excited from killing animals	-0.042	-0.011	0.648*	0.089*
30. I am sexually attracted to humans (R)	-0.003	0.685*	0.096*	-0.188*
31. I would have sex with a human if they were available (R)	-0.018	0.666*	0.029	-0.235*
32. Animals can reciprocate my romantic feelings and attractions	0.860*	0.215*	-0.114*	0.037*
33. Animals can reciprocate my sexual feelings and attractions	0.914*	-0.044	-0.072*	-0.040*
34. I am interested in animals with human qualities or the idea of being an anthropomorphized animal	0.291*	-0.080*	-0.077*	0.565*
35. I get sexually excited by media (e.g., drawings, videos, gifs) of anthropomorphized animals	0.404*	-0.175*	-0.056*	0.472*
36. I get sexually excited from wearing a fursuit	-0.018	0.126*	0.076*	0.875*
37. I get sexually excited from sexualized contact with others wearing fursuits (yiffing)	-0.016	0.035*	0.054*	0.889*

Note: *significant at 5% level; (R) indicates a reverse-scored item. Items loading in bold font.

Table 4-2

Correlation Matrix: Bivariate Associations between SIA-SR Scores and Animal Stimulus Composite Ratings (Average Item Values)

Animal stimulus ratings	Sexual Interest in Animals-Self Report				Total
	Zoophilia	Opportunism	Furryism	Zoosadism	
Sexual attractiveness					
Dog composite	.70	.38	.45	.55	.70
Cat composite	.14	.05	.13	.20	.16
Fowl composite	.09	.00	.13	.15	.10
Cow composite	<i>.41</i>	.18	<i>.35</i>	<i>.33</i>	<i>.41</i>
Horse composite	.67	<i>.40</i>	<i>.45</i>	.52	.68
Pig composite	.32	.15	.23	.24	.32
Sheep composite	.35	.10	.29	.30	.35
Romantic attractiveness					
Dog composite	.57	.07	.33	<i>.44</i>	.53
Cat composite	.12	-.04	.06	.14	.11
Fowl composite	-.02	-.08	.03	.06	-.01
Cow composite	<i>.30</i>	.01	.22	.24	.28
Horse composite	.54	.12	.35	<i>.41</i>	.51
Pig composite	.23	.00	.16	.17	.21
Sheep composite	.23	-.04	.18	.20	.21
Cuteness					
Dog composite	.05	-.02	-.01	.11	.06
Cat composite	.02	.09	.01	.15	.06
Fowl composite	-.19	-.11	-.18	.00	-.16
Cow composite	.14	.09	.12	.18	.16
Horse composite	.25	.09	.17	.22	.25
Pig composite	.10	.08	.09	.13	.11
Sheep composite	.12	.06	.11	.17	.14

Note: $p < .001$ for $r \geq .10$, $p < .01$ for $r = .08-.09$, $p < .05$ for $r = .06-.07.$, *ns* for $r \leq .05$. $N = 1,222$ to $1,228$. Large correlations in bold font, medium correlations in italics, small or subthreshold effects in standard font.

Table 4-3

Zoophilic Identification and Endorsement of Other Paraphilic Interests or Behaviors

Paraphilic category	Overall % [n]	Zoophilic identification		χ^2	OR
		Yes % [n]	No % [n]		
Furry	34.6 [418/1,207]	44.2 [381/862]	10.7 [37/345]	121.96***	5.45
Voyeurism	43.4 [519/1,195]	48.1 [411/854]	31.7 [108/341]	26.86***	2.00
Exhibitionism	21.3 [256/1,200]	25.5 [219/859]	10.9 [37/341]	31.19***	2.81
Public masturbation	28.4 [340/1,199]	34.8 [299/858]	12.0 [41/341]	62.58***	3.91
Frotteurism	5.5 [66/1,199]	6.4 [55/860]	3.2 [11/339]	4.60*	2.03
Fetishism	37.8 [454/1,198]	44.2 [380/859]	21.8 [74/339]	51.86***	2.84
Masochism	26.2 [315/1,202]	30.5 [263/861]	15.2 [52/341]	29.55***	2.44
Telephone scatologia	12.5 [150/1,202]	13.3 [114/858]	10.6 [36/341]	1.66	1.30
Sadism	14.1 [169/1,200]	15.7 [135/861]	10.0 [34/339]	6.42*	1.66
Necrophilia	3.4 [41/1,204]	4.4 [38/862]	0.90 [3/342]	9.28**	5.21

Note: *** $p < .001$; ** $p < .01$; * $p < .05$. OR = odds ratio.

Table 4-4

Predictive Accuracy (d and AUC) of SIA-SR Scores and Animal Stimulus Composite Ratings (Average Item Values) for Self-Reported Zoophilia

Measure	Zoophilia		Control		<i>d</i>	AUC [95%CI]
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
<i>Sexual Interest in Animals-SR</i>						
Total scale	4.45	0.68	1.72	1.19	3.18	.94*** [.93, .96]
Zoophilia subscale	5.43	0.99	1.79	1.38	3.03	.96** [.94, .97]
Opportunism subscale	4.05	1.32	2.01	1.81	1.29	.80** [.76, .84]
Furryism subscale	3.65	1.47	1.66	1.20	1.48	.87** [.84, .89]
Zoosadism subscale	2.08	0.54	1.22	0.46	1.71	.85** [.83, .88]
<i>Animal stimulus ratings</i>						
Sexual attractiveness						
Dog composite	3.20	1.03	1.51	1.00	1.66	.87*** [.85, .90]
Cat composite	1.43	0.94	1.25	0.75	0.20	.58*** [.54, .61]
Fowl composite	1.21	0.60	1.17	0.65	0.05	.53 [.50, .57]
Cow composite	2.39	1.65	1.32	0.69	0.85	.76*** [.71, .77]
Horse composite	4.42	1.90	1.77	1.54	1.66	.87*** [.84, .89]
Pig composite	1.80	1.25	1.18	0.67	0.62	.67*** [.64, .71]
Sheep composite	1.99	1.30	1.26	0.83	0.70	.70*** [.67, .73]
Romantic attractiveness						
Dog composite	2.88	1.34	1.57	1.07	1.09	.79*** [.76, .82]
Cat composite	1.63	1.20	1.45	1.03	0.16	.54* [.51, .58]
Fowl composite	1.19	0.59	1.27	0.76	-0.12	.50 [.46, .54]
Cow composite	1.80	1.33	1.25	0.82	0.50	.64*** [.61, .67]
Horse composite	3.53	2.11	1.69	1.44	1.01	.78*** [.75, .80]
Pig composite	1.47	0.97	1.16	0.63	0.38	.59*** [.56, .63]
Sheep composite	1.66	1.13	1.30	0.85	0.36	.61*** [.58, .64]
Cuteness						
Dog composite	4.84	1.17	4.80	1.24	0.03	.50 [.46, .53]
Cat composite	4.84	1.59	4.79	1.50	0.03	.52 [.48, .56]
Fowl composite	3.44	1.47	3.65	1.38	-0.15	.46* [.42, .49]
Cow composite	3.17	1.69	2.86	1.73	0.18	.56** [.52, .60]
Horse composite	4.70	1.68	4.15	1.72	0.32	.59*** [.56, .63]
Pig composite	3.45	1.68	3.20	1.67	0.15	.54* [.51, .58]
Sheep composite	3.92	1.64	3.70	1.58	0.14	.54* [.51, .58]

Note: *** $p < .001$, ** $p < .01$, * $p < .05$. $N = 1,203-1,205$. All *M* and *SD* are item averages on a 7-point (1-7) scale with 4 as the midpoint.

Table 4-5. *Logistic Regression: Prediction of Binary Self-Reported Zoophilia by SIA-SR and Animal Stimulus Ratings*

Regression Model	<i>B</i>	<i>SE</i>	<i>Wald</i>	<i>p</i>	<i>e^B</i> [95% <i>CI</i>]
Model 1: SIA-SR subscales					
Zoophilia	1.440	.112	165.95	< . 001	4.219 [3.389, 5.252]
Opportunism	0.026	.085	0.09	.760	1.026 [0.869, 1.211]
Furryism	-0.023	.101	0.05	.819	0.977 [0.802, 1.191]
Zoosadism	0.235	.244	0.93	.335	1.265 [0.784, 2.042]
constant	-4.984				
Model 2: Sexual attractiveness animal stimulus ratings					
Dog	1.271	.114	123.55	< . 001	3.563 [2.848, 4.457]
Cat	-0.624	.147	18.12	< . 001	0.536 [0.402, 0.714]
Fowl	-0.811	.209	15.02	< . 001	0.444 [0.295, 0.670]
Cow	0.131	.134	0.95	.329	1.140 [0.876, 1.483]
Horse	0.519	.071	53.16	< . 001	1.680 [1.462, 1.932]
Pig	-0.089	.169	0.28	.597	0.915 [0.657, 1.273]
Sheep	-0.005	.180	0.00	.978	0.995 [0.699, 1.416]
constant	-1.761				
Model 3: Romantic attractiveness animal stimulus ratings					
Dog	1.088	.115	90.12	< . 001	2.969 [2.371, 3.717]
Cat	-0.468	.113	17.07	< . 001	0.626 [0.502, 0.782]
Fowl	-1.188	.215	30.57	< . 001	0.305 [0.200, 0.465]
Cow	0.264	.172	2.36	.125	1.303 [0.929, 1.826]
Horse	0.431	.075	32.76	< . 001	1.539 [1.328, 1.784]
Pig	0.224	.184	1.48	.224	1.251 [0.872, 1.794]
Sheep	-0.283	.189	2.25	.133	0.753 [0.521, 1.091]
constant	-0.451				
Model 4: Sexual vs. romantic attractiveness animal stimulus ratings					
Dog sexual	0.943	.144	42.83	< . 001	2.568 [1.936, 3.406]
Dog romantic	0.075	.136	0.31	.578	1.078 [0.827, 1.406]
Horse sexual	0.542	.103	27.90	< . 001	1.720 [1.406, 2.103]
Horse romantic	-0.107	.108	0.98	.322	0.899 [0.727, 1.110]
constant	-2.726				
Model 5: SIA-SR subscales vs. Sexual attractiveness animal stimulus ratings					
Block 1					
Dog sexual	0.631	.107	34.74	< . 001	1.879 [1.524, 2.318]
Horse sexual	0.265	.064	17.21	< . 001	1.303 [1.150, 1.477]
Opportunism subscale	0.088	.067	1.73	.188	1.092 [0.958, 1.244]
Furryism subscale	0.358	.087	16.87	< . 001	1.430 [1.206, 1.696]
Zoosadism subscale	1.788	.186	92.26	< . 001	5.976 [4.149, 8.607]
constant	-5.613				
Block 2					
Dog sexual	0.016	.143	0.01	.909	1.016 [0.769, 1.344]
Horse sexual	-0.050	.088	0.32	.570	0.951 [0.800, 1.131]
Opportunism subscale	0.044	.085	0.26	.608	1.045 [0.884, 1.234]
Furryism subscale	-0.026	.101	0.06	.801	0.975 [0.799, 1.189]
Zoosadism subscale	0.181	.250	0.52	.470	1.198 [0.734, 1.958]
Zoophilia subscale	1.482	.137	116.30	< . 001	4.402 [3.363, 5.763]
constant	-5.009				

Note: Model 1 *N* = 1,203, Models 2-5 *N* = 1,119. Significant *p*-values in bold font.

CHAPTER 5

5. GENERAL DISCUSSION

The purpose of this dissertation was to contribute to the limited literature regarding sexual attraction to animals and animal sexual abuse (ASA). The current dissertation adds to the existing literature by providing information on what veterinary medical professionals know about the recognition and prevention of ASA and their attitudes towards individuals who commit acts of ASA; information which is virtually non-existent in the current literature. Additionally, this dissertation provides much needed information on individuals who report a sexual attraction to animals including the creation of a self-report measure that can be used to facilitate future research with this population. In this chapter, results from both studies are presented and discussed and concludes with a reflection on the research process, a discussion of the limitations of this research, and recommendations for future studies.

5.1 Summary of Findings

As this dissertation is manuscript-based, analyses were separated into two distinct manuscripts. The first manuscript focuses on veterinary medical professionals' knowledge and attitudes regarding ASA. The second manuscript focuses on the measurement and correlates of zoophilic interest in an online community sample.

5.1.1 Manuscript One

The first manuscript, titled "A Survey of Veterinary Medical Professionals' Knowledge, Attitudes, and Experiences with Animal Sexual Abuse," presented results from a survey designed to comprehensively and purposefully study what veterinary medical professionals know about ASA. Understanding what veterinary medical professionals' know about the detection and

prevention of ASA is important as, while a relatively uncommon behaviour in the general population (ranging from about 2 to 8% depending on the sample; Kinsey et al., 1948; Hunt 1974), it is also elevated among certain populations (REFS). Further, veterinary medical professionals may be some of the first people to recognize the signs of ASA in their patients.

Results indicated that, while more than half of the veterinary medical professionals reported having received training on non-sexual abuse, more than 84% of those surveyed reported never having received training on ASA or reporting requirements. Veterinary medical professionals with a specialization other than general practice reported having significantly more hours of training than those who were general practitioners, $\chi^2 (1, n = 12) = 4.29, p = .038$, and were more satisfied with their training (Welch's $F (1, 45.02) = 6.66, P = .013$). Despite having more hours of training and being more satisfaction with their training, specialist still reported very few hours of training an average satisfaction that corresponds with a scale label of "disagree." These findings are unsurprising as small animals veterinarians have reported feeling that their education did not adequately prepare them to deal with the realities of dealing with animal abuse in practice (Sharpe and Wittum, 1990; Millman et al., 2005; AVMA Model Animal Welfare Curriculum Planning Group et al., 2017). These feelings of inadequacy in preparation are reported in the literature on general abuse as that is the only information available and there is no information available on ASA education in the literature. If the results from the current study are generalizable to the general population of veterinary medical professionals, then the large majority of these professionals are lacking training on the detection of ASA and reporting requirements in their jurisdiction.

Results indicated that than one-third and one-fifth of respondents reported handling a suspected or confirmed case of ASA, respectively. While this study was the first in the literature

to intentionally measure what veterinary medical professionals' experiences with ASA, there have been a handful of studies that have reported that about 6% of all animals abuse cases reported by small animal practitioners involved ASA (Munro and Thrusfield, 2001; Williams et al., 2008). These previous findings are considerably lower than the 20 to 30% prevalence reported in our sample—a discrepancy which may have come about through several mechanisms.

First, the rates of ASA could actually be higher than when they were measured two decades ago by Munro and Thrusfield (2001) and later by Williams and colleagues (2008). Second, while untested as previously mentioned, education regarding ASA for veterinary medical professionals may have improved since Munro and Thrusfield (2001) and Williams and colleagues (2008) reported their results. This improvement of knowledge on ASA could potentially be attributable to a larger focus on animal welfare in recent years. In a review of thirteen medical school curriculums in the early 2000's, Hewson and colleagues (2005) found that only one veterinary medical curriculum mentioned abuse while, nearly a decade later, a review of medical schools in Canada, the US, and the Caribbean found that thirteen offered courses related to animal welfare (AVMA Model Animal Welfare Curriculum Planning Group et al., 2017). While information on ASA-specific content is not available, an increase in educational content related to general abuse may have resulted in an increased awareness of the signs of abuse. Despite these apparent increases in education related to animal welfare, results of this dissertation still indicate that veterinary medical professionals did not feel prepared to deal with cases of ASA. As anticipated, very few VMPs indicated that they had reported a suspected or confirmed case of ASA. Many individuals did indicate that they had seen patients with injuries common to ASA (see Table 2-1) which, paired with a lack of knowledge among VMPs,

could indicate that there is a risk of professionals not recognizing ASA—leaving their patients vulnerable to future abuse. Additionally, as in the nonsexual abuse literature (Landau, 1999), the majority (84%) of VMPs indicated that they had not received any information on reporting requirements for their province/territory/state. This lack of training on ASA and reporting requirements could explain why two participants in this study reported doing nothing in response to a suspected or confirmed case of ASA.

Finally, this discrepancy could be explained by self-selection bias in the survey in which veterinary medical professionals who had encountered ASA in practice were more likely to respond to the survey, thus, inflating rates of ASA seen in the sample. Self-selection bias refers to the notion that, as respondents are free to decide whether or not they wish to participate, the sample may be biased and not fully represent the whole of the population being studied (Bethlehem, 2010). This potential for selection bias is further substantiated by the conspicuous taboo associated with animal sexual abuse in the veterinary medical community (Munro, 2006). Despite the relative comfort with which many veterinarians communicate about sexual topics related to animals (e.g., animal husbandry), ASA is still a scanty discussed topic in the veterinary community and there is even a paucity of information about ASA in reference materials available to veterinary medical professionals (Munro, 2006). Indeed, when attempting to secure a committee member from veterinary medicine for this dissertation, all of the veterinary medical professionals contacted (including those with a specialty in animal welfare) were hesitant to join the project due to the nature of research. The taboo and discomfort associated with the topic of ASA may have made those with experiences related to ASA more likely to respond to the survey, therefore inflating the rate of ASA reported.

This dissertation was, to the writer's knowledge, the first to report on perceptions of criminal justice responses to ASA and perpetrators. Results of this dissertation indicated that attitudes on the modified Community Attitudes Towards Sexual Offenders (CATSO) were around the midpoint of the scale, indicating less hostile attitudes. This finding was quite surprising as public attitudes towards sexual offenders tend to be quite negative (Levenson et al., 2007; Olver and Barlow, 2010; Willis et al., 2010; Sparks and Wormith, 2020). While veterinary medical professionals tend to work with victims of ASA making them more akin to victim service workers, their attitudes towards those who commit acts of ASA seem to be more in line with those of criminal justice professionals who are generally punitive but endorse a capacity for change (Conley et al., 2011; Jones, 2013). As expected, scores on the modified Abel Becker Cognition Scale (ABCS) were very low and, while there were individuals in the sample who did endorse these views, these results seem to indicate that the vast majority of veterinary medical professionals do not hold views supportive of offending against animals.

Despite these relatively positive attitudes on the CATSO, veterinary medical professionals were quite punitive in their responses towards individuals who commit acts of ASA and indicated that they should serve sentences in excess of a decade. These long sentences endorsed by veterinary medical professionals are well above the median sentence for sexual offenders (Maxwell, 2017) and may reflect negative attitudes towards the criminal justice system. While this is a scantily researched topic—and while there is no information available specific to ASA—there is some research available that does indicate that veterinarians lacked confidence in legislation designed to protect animal welfare and criminal justice professionals such as the police (Piotr Pręgowski & Cieślík, 2020; Wu et al., 2015). This lack of faith in current legislation may be the reason that veterinary medical professionals were supportive of

other sanctions such as being barred from owning a pet, being barred from working with animals, and being placed on a public registry. These supportive views are quite similar to the public support seen for sex offender registries despite the fact that they do little to actually address or ameliorate the situation (Kernsmith et al., 2009; Schiavone and Jeglic, 2009; Comartin et al., 2013; Sparks and Wormith, 2020). Public registries for animal abuse do exist and are particularly popular in the United States but are not endorsed by the ASPCA as they are not the most effective strategy to prevent ASA (ASPCA, n.d.). Overall, VMPs were quite supportive of mandatory reporting which was not in line with previous research that has indicated that fewer than half of those VMPs felt it should be their legal responsibility to report abuse or neglect (Donley et al., 1999). While this shift towards mandatory reporting is promising, almost half of all veterinary medical professionals did not feel competent to act as an expert witness in cases that they might report.

5.1.2 Manuscript Two

The second manuscript entitled “Measurement and Correlates of Zoophilic Interest in an Online Community Sample” sought to explore sexual attraction to nonhuman animals and to distinguish the sexual attraction to animals from the sexual attraction to anthropomorphized animals (i.e., furies) and nonsexual attraction to animals (e.g., finding an animal “cute”). This goal was partially accomplished by creating a psychometric paper and pencil measure of sexual interest in nonhuman animals. Based on an EFA, the SIA-SR a four-factor model was retained to generate subscales. The four factors were labeled: Zoophilia (20 items, eigenvalue = 16.597, $\alpha = .88$), Opportunism (5 items, eigenvalue = 3.694, $\alpha = .77$), Zoosadism (5 items, eigenvalue = 2.767, $\alpha = .72$), and Furryism (7 items, eigenvalue = 2.140, $\alpha = .89$). Table 3-1 presents the factor loadings for each item of the scale. The Zoophilia scale contains items that indicate a

general sexual interest in nonhuman animals and desire to have sexual contact with them. The Opportunism scale includes items that indicate a sexual preference for humans, but a willingness to have sexual contact with nonhuman animals if an opportunity is present. The Zoosadism scale captures sexual attitudes, urges, preferences, and behaviors regarding the pain and suffering of nonhuman animals and/or sexual contact with dead animals. Finally, the Furryism scale contains items related to sexual excitement with anthropomorphized animals and fursuits.

These subscales are consistent with previous classification systems (Aggrawal, 2011; Earls & Lalumière, 2002) which differentiate between activities to classify level of interest. Specifically, the *Opportunism* subscale of the SIA-SR maps onto Class VII (opportunistic zoosexuals) of Aggrawal's (2011) system. Aggrawal (2011) describes Class VII as being composed of individuals who would be satisfied with having intercourse with a human partner, but would have sexual intercourse with an animal if the opportunity were to arise. While these individuals engage in sexual intercourse with animals, these individuals do not have a romantic attraction to animals. *Opportunism* in the SIA-SR is composed of items such as "I prefer to have sex with animals," and "I have no romantic interest in animals but I would still have sex with them." These items are nearly identical to those described by Aggrawal (2011) giving the *Opportunism* subscale a sound theoretical backing. Additionally, this subscale seems to cover Class III (zoophilic fantasizers) as *Opportunism* also covers individuals who have fantasies about sexual interests in animals, but do not actually follow-through on the acts. Moreover, the *Zoosadism* maps onto Class IX (homicidal bestials) in Aggrawal's (2011) classification system. Class IX involves individuals who kill animals for sexual gratification and practice zoonecrophilia as well. *Zoosadism* includes items such as "get sexually excited from killing animals" and "I prefer to have sex with dead animals," mapping perfectly onto Aggrawal's

classification system. This subscale also covers Class VI (sadistic zoophiles) as these individuals derive pleasure from torturing animals.

The *Zoophilia* subscale of the SIA-SR includes aspects for four of the classes in Aggrawal's (2011) system; Class II – “romantic zoophiles”, Class IV – “tactile zoophiles”, Class VIII – “regular zoosexuals” and Class X – “exclusive zoosexuals”. “Romantic zoophiles” keep pets keep animals as pets in order to gain psychosexual stimulation but they do not actually engage in sex with the animal (Aggrawal, 2011). This class is represented in the *Zoophilia* subscale by questions such as “I feel romantic love for my pet, but I would never have sex with them.” For “tactile zoophiles”, individuals receive sexual excitement and gratification by stroking and fondling the genital, perianal, and anal region of an animal. Some of these individuals also practice zoophilic frotteurism (Aggrawal, 2011). These individuals are represented by questions in the *Zoophilia* subscale such as “I'm sexually excited by touching the genital and anal regions of animals” and “I rub my genitals on animals for sexual to heighten sexual excitement.” Individuals in the “regular zoophile” class have a strong preference for nonhuman animals, but they can have intercourse with humans as well. These individuals have an emotional connection with animals that they describe as love and they do not intend to harm the animals that they have sex with (Aggrawal, 2011). This class is represented on the *Zoophilia* subscale through a mix of items such as “I love animals romantically,” “I wouldn't turn down the opportunity to have sex with an animal,” and “I allow the animal to show consent to sexual intercourse.” Finally, “exclusive zoosexuals” (i.e., individuals who have sexual intercourse primarily or exclusively with animals and have a strong sexual preference for animals over humans; Aggrawal, 2011) are represented by questions such as “I prefer to have sex with animals rather than humans.” Individuals in Class X report exclusively zoophilic interests and would

satisfy Earls and Lalumière's (2002) criteria for exclusive zoophilia as is seen in the *Zoophilia* subscale of the SIA-SR.

As predicted, furryism does seem to be a separate phenomenon with a distinct subscale capturing this construct—the *Furryism* subscale—although there does seem to be some overlap between those who endorse zoophilia and those who endorse furryism. As posited previously, furryism does seem to overlap with the Aggrawal's (2011) Class I (human-animal role-players) classification as, in addition to behaviors typically associated with furryism (i.e., wearing a fursuit, having sexual contact with others in fursuits, and consuming furry media; Roberts et al., 2015), the subscale also included behaviors described in Class I of Aggrawal's (2011) system (e.g., roleplaying animal-like behavior during human sexual encounters and a desire for human partners to reciprocate such behaviors).

One important contribution of the SIA-SR over previous classification systems is a softening of the language used in the subscale labels. Previous classification systems have used language such as “homicidal besitals” when labeling their classes which can be quite stigmatizing for those who fall into those categories. Labeling has become a pressing issue in forensic and correctional literature with a move towards de-labelling and person-first language (Cox, 2020; Willis, 2017; Willis & Letourneau, 2018). Despite guidance from the American Psychological Association (2020) to avoid stigmatizing language when referring to groups, forensic/correctional psychology has been slow to adopt this general recommendation and much of the research in the field still applies stigmatizing labels such as “sexual offender” to the individuals being studied (Willis, 2017). While many of the labels used in the literature or in clinical settings are based on sound theory and diagnostic categories, they can still carry a lot of negative connotations and be detrimental to the people labeled as such (Willis, 2017; Willis &

Letourneau, 2018). This stigma can translate into real-world implications with individuals being less willing to assist individuals carrying a stigmatized label than those with a more neutral label (Lowe & Willis, 2020). With these implications and controversies in mind, the labels selected for the SIA-SR—and the title of “sexual interest in animals” itself—subscales were intentionally neutral and meant to avoid assuming that all people with a sexual interest in animals are deviant or “offenders.”

The SIA-SR total scale and all subscales had excellent discriminatory ability for self-identified zoophilic interest based on the AUCs that were calculated and, when entered into a logistic regression, the Zoophilia subscale was predictive of zoophilic self-identification. These results indicate that further research is needed into the other subscales to further explore their predictive ability. Although the discrimination properties of the Zoosadism subscale for self-reported zoophilia were excellent, this subscale merits further exploration as individuals with zoophilic interest are not a homogenous group. While some individuals undoubtedly use force or harm during their sexual acts with animals, this tends to be a minority compared to the large number of individuals who engage in sexual practices intended to minimize the potential for physical injury or discomfort to the animal (Beetz, 2005). Moreover, our main source of recruitment may have contributed to this lack of discriminatory capability for zoosadism/necrophilia specifically as our main source for recruiting individuals who identify as zoophilic, Zooville, tends to focus on “ethical practices” (ZTHorse, personal communication, August 2020). Furthermore, while the true prevalence of sexual sadism seems to be unknown (Federoff, 2008), sexual sadism does seem to be relatively uncommon with estimates of prevalence ranging from 5 to 20% (Groth & Birnbaum, 1979; Marshall et al., 2002; Proulx & Sauvêtre, 2007). Beetz (2002) also reported that 5.3% of men practicing bestiality reported

harming an animal and almost twice as many (9.7%) used force in some capacity during sexual relations. As sadism is uncommon among other populations and seems to be quite low in individuals who have sexual contact with animals, there is no reason to assume that it would be more abundant among individuals with a sexual interest in animals and low rates of these behaviors are to be expected.

The people in this survey endorsed a variety of animal sexual interests from the comprehensive stimulus set, but the endorsement of sexual interest in horses and dogs was most prominent, while attraction to cats and fowl tended to be low, and sexual attraction to pigs, cows, and sheep fell somewhere in the middle. Dog and horse sexual and romantic attractiveness ratings also had the largest and most consistent associations with SIA-SR item scores. The popularity of the dog and horse images is unsurprising as previous literature has confirmed the popularity of these animals as targets of sexual interest (Munro & Thrusfield, 2001; Miletski, 2002; Williams et al., 2008). While animal stimulus ratings of sexual attractiveness, romantic attraction, and cuteness were moderately intercorrelated, they clearly represented distinct underlying phenomena. Sexual and romantic attractiveness ratings discriminated between zoophilic and non-zoophilic persons well, but cuteness did not; whether somebody has zoophilia or not, a “cute” dog is a “cute” dog. The results of logistic regression, however, showed that sexual attractiveness ratings trumped romantic attractiveness ratings in the prediction of binary zoophilia; dog and horse sexual attractiveness ratings each independently predicted a 1.7 to 2.5 increased odds of endorsement of zoophilia identification controlling for romantic attraction. The implications are that while romantic attraction (i.e., animals as romantic partners) appears to be one component of zoophilia, this has much overlap with sexual attraction.

The online zoophilia community appears to be a large and well supported international community of persons who share a sexual attraction to animals. Our research also demonstrated that the presence of self-reported zoophilia also coincides with the endorsement of other paraphilic behaviors, with the largest associations being with furryism (which had a high base rates) and necrophilia (which had a very low base rate). Sexology research has found that paraphilias tend to be intercorrelated, as do specific fetishes (Seto et al., 2014). The conceptual overlap with furryism, however, bears further mention. Zoophilia was correlated with furryism; however, most persons with zoophilia were not furies, and while furryism was correlated with indicators of zoophilia, these associations were decreased to non-significance after controlling for self-identified zoophilia. Thus, the link between furryism and these zoophilic indicators are only by virtue of shared variance with zoophilia.

5.2 Limitations and Recommendations for Future Research

This dissertation had several limitations, first among them being that it collected self-reported information about topics that are socially taboo and potentially stigmatizing. Some have argued that self-reports of sexual behaviours and especially stigmatized behaviours are unreliable and prone to bias (Brody, 1995; Lewontin, 1995). While there are no studies specific to the measurement of sexual interest in animals and the detection of ASA, general research on sexuality and crime do seem to suggest that there is a small but significant effect of socially desirable responding, particularly impression management, on the results of studies in these domains (Mathie & Wakeling, 2011; Meston et al., 1998). In order to mitigate the effects of socially desirable responding, respondents were reminded that they were completely anonymous and that their responses would not be identifiable in any way. Previous research has indicated that participants showed the lowest levels of socially desirable responding when they were in

anonymous, web-based surveys (Joinson, 1999). As both studies for this dissertation were conducted online and were anonymous, measures were undertaken to attempt to minimize this risk of socially desirable responding. Additionally, while there does seem to be some evidence that impression management can have an effect on responses, research does indicate that individuals are still willing to share self-reported stigmatizing information about both sexuality and crime with considerable accuracy (McFarlane & Lawrence, 1999; Weinrott & Saylor, 1991). The potential for socially desirable responding should be considered when interpreting the results of this dissertation and future studies should continue to monitor and explore the effect of socially desirable responding on studies related to sexual interest in animals and ASA.

Additionally, the composition of the samples used in this dissertation should be considered. For the study with veterinary medical professionals, the sample of 88 participants was quite small and may not be representative of the field as a whole. Most of the professionals surveyed were women, heterosexual, Caucasian, and working in Canada. As women tend to give harsher ratings of punishment than men when it comes to crimes against animals, the views of the veterinary medical professionals are potentially more representative of the views of heterosexual, Caucasian women working in Canada rather than the profession as a whole (Sims et al., 2007). For the sample of individuals with zoophilic interests, the sample included in this research was mainly composed of heterosexual, Caucasian men with university degrees and liberal views, leaving those individuals who do not fit into those categories less well understood. Additionally, the questions regarding pet ownership in that study did not differentiate between those who own pets for companionship and animals that the participants consider their partners. This omission should be corrected and the distinction clearly articulated in future studies to best capture data related to these concepts.

As this dissertation is one of the few programs of research to examine sexual interest in animals as well as knowledge about ASA among veterinary medical professionals, the possibilities for future research are substantial—so, this section will focus on what I view as the most pressing or interesting possibilities. First, as the taboo related to ASA among the veterinary community is not well understood (Munro, 2006), this concept should be further explored. As this research question aims to investigate the context-bound meaning behind this taboo, qualitative methods might best elucidate this information (Braun & Clarke, 2013; Haverkamp & Young, 2007; Morrow, 2007). Additionally, further exploration into the criminal justice attitudes of veterinary medical professionals towards individuals who commit acts of ASA and their experiences with reporting ASA could help to inform veterinary medical staff in their professional duties. Furthermore, an investigation into of the understanding of the distinction between zoophilia and bestiality (Beetz, 2008) among veterinary medical professionals may help to inform educational interventions aimed at these professionals.

Further research into the SIA-SR and its subscales should be undertaken as well to establish validity and reliability of the total scale and its subscales. As individuals with zoophilic interest are not a homogenous group, a latent profile analysis of zoophilic persons using the SIA-SR and some of the animal stimuli is also warranted to further understand this group. Additionally, based on some comments left on the survey, research into stigma-related stressors and social support—similar to the work of Elchuck et al. (2021) with Minor Attracted Persons—could provide valuable information on this population. Finally, given the level of interest and input from the community of Zooville.org in this research, future research into this area should attempt to build trust and egalitarian research partnership with community through community-based participatory action research (Stephens et al., 2020).

5.3 Reflections

Completing this dissertation and managing two projects with two wildly different sets of participants, philosophies, and language considerations required a very delicate balancing act. The original intention was never to have these projects in the same document but, after the death of my former PhD supervisor Dr. Steve Wormith, these two projects (which were then just in the planning stage) became one dissertation. From day one, the tension between the two papers was palpable and it was a very large struggle to integrate the two studies into one comprehensive document. These tensions are evident throughout the document and even appear in the title—with which I am still not entirely satisfied.

Despite this tension—and perhaps due in part to it—I have tried my best to take extra measures to ensure that I have approached these studies with all of the sensitivity that they deserve. ASA, bestiality, and zoophilia are all already very taboo topics that many people are uncomfortable with, so I was aware that this research would take some extra care and planning to do successfully. This planning took the form of extensive consultation with members of the communities that we were targeting. First, for the study with veterinary medical professionals, the original plan was to have a member of the veterinary college sit on my committee to provide consultation on the language and dissemination of the survey and findings. Unfortunately, this proved to be impossible as every veterinarian that we asked declined to participate owing to a lack of comfort with the subject, a lack of knowledge in the area, or trauma related to the topic. Due to these difficulties, a good friend of mine who is licenced to practice veterinary medicine in North American and the United Kingdom (who is not an expert in ASA but who knows the field of veterinary medicine and realities of practice very well) very graciously offered to assist with the development of the survey and with any interpretation of the results. Her input was

invaluable as I was unaware of some of the nuances of the terminology used in the field and, with her input, we were able to design a very comprehensive and successful survey.

As someone who mainly works with student samples who are often simply participating to get their bonus credits or in the field of forensics where it is often file reviews, one thing that I was not anticipating was the level of participation and input from the community at Zooville.org. I submitted my request to the moderators half expecting that that the request would immediately be rejected and treated with suspicion and assumed malice. What I got back instead was a reply that was very open and accepting of the possibility of a survey and a genuine desire to inform the research process. Through exchanges with the forum moderators, this project really skirted the line of participatory action research with moderators of the Zooville community essentially co-creating the SIA-SR along with my supervisor and myself. As members of the community, these conversations with the forum moderators provided me with a level of insight on certain wordings and concepts that I would never have come to myself. The feedback from the Zooville community was truly invaluable to the creation of the survey and resulted in a better instrument than what was originally proposed. Through these conversations, I also hope that I dispelled the (warranted) suspicion of being an outsider who wanted to conduct research with the community. Because of this trust building process, I have the amazing sample that of data that I present in this dissertation. Additionally, I continue to be amazed at the trust that every individual placed in me while sharing intimate, vulnerable details about their lives and sexual interests and I am eternally grateful for their participation.

Throughout the research process, there were several spots of tension that arose between the two projects and how they fit together. Owing to the vastly different samples and objectives of the two studies, the language used in the surveys was very different and almost diametrically

opposed. One study made a concerted effort to contain neutral and person-first language and the other discussed abuse, offenders, and harm. Much of the language used in the veterinary medicine study would have appalled the individuals in the zoophilic interest study and vice versa. This tension between the studies and the language used in them was not lost on the Zooville community and, part way through recruitment, I received an email from a member of the forum who was rightfully concerned about how these two studies would go together and be discussed in this dissertation. I did my best to assuage these concerns with an assurance that they were completely separate studies that would be discussed as such. I hope that this dissertation is a testament to that separation and an affirmation that I did not have any ill intentions with this research. In other words, I hope that I was successful in my delicate balancing act with these two projects and have done both communities justice.

Reflecting on all of the issues that arose in this study, I would say that relationship building and including members of the community in the research design process was very successful and absolutely necessary. Going forward, I believe that research with the Zooville community should probably utilize a participatory action research design as proposed by Stephens and colleagues (2020) as the community seems very engaged and they know their community better than any outside researcher ever will. While these individuals may not be researchers by trade, they certainly can act as researchers in practice just as they did for this project. Additionally, having input from a practicing vet was equally important as veterinarians have their own vernacular that an outsider may not know. Establishing relationships where there is mutual trust and respect is also very important, not only for access, but in order to mitigate any issues that may arise during the research process. Due to the relationships that I had spent time and effort building, participants knew that they could contact me at any time with any comments

or concerns and I would do my best to address them. Because of the strong relationship, open communication, and consultation with the target communities, I feel that this research was very strong and provided valuable results and knowledge to the scientific community.

5.4 Conclusion

Sexual interest in animals and ASA is a scanty research topic that can have real world implications for the lives of animals and zoophilic individuals. The present dissertation adds to the nascent body of literature on ASA and advances our understanding of zoophilic interest by creating a self-report measure of sexual interest in animals. Veterinary medical professionals do not seem to have adequate training on the detection or reporting of ASA that they may encounter on the job, which could mean that animals who are being sexually abused are not being protected. With the baseline of knowledge established in this dissertation, it is possible to design future educational materials and interventions for these professionals to address any identified gaps. The creation of the Sexual Interest in Animals – Self-Report (SIA-SR) indicated that sexual interest in animals may be best represented by four distinct factors—Zoophilia, Opportunism, Zoosadism, and Furryism. Additionally, sexual interest in dogs and horses was also predictive of zoophilic identity. The creation of the SIA-SR will facilitate research with this population—leading to an improved understanding of this demographic and will have implications for improving the lives of zoophilic individuals and the animals that they care for. The results of this dissertation provide a foundation of knowledge on two very rarely studied topics and provide direction for future research into all facets of sexual interest in animals and sexual abuse of animals.

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Appendix A: Modified CATSO

Items are rated on a 6-point Likert scale with the following options: "strongly disagree," "disagree," "probably disagree," "probably agree," "agree," and "strongly agree."

1. With support and therapy, someone who committed an act of sexual abuse toward an animal can learn to change their behaviour.
2. People who commit acts of sexual abuse toward animals should lose their civil rights (e.g., voting and privacy)
3. People who commit acts of sexual abuse toward animals want to have sex more often than the average person
4. A lot of people who commit acts of bestiality use their animal victims to create pornography
5. Sexual fondling of an animal is not as bad as intercourse with the animal
6. People who commit acts of bestiality prefer to stay home alone rather than be around lots of people
7. Most people who commit acts of bestiality do not have close friends
8. People who commit acts of bestiality have difficulty making friends despite their best efforts
9. The prison sentences for people who sexually abuse animals are too long compared to the sentence lengths for other crimes
10. People who commit acts of bestiality have high rates of sexual activity
11. Trying to rehabilitate somebody who has sexually abused an animal is a waste of time
12. People convicted for animal sexual abuse should wear tracking devices so their location can be pinpointed at any time
13. Few people who commit acts of bestiality are dangerous to the general public
14. Most people who commit acts of bestiality are unmarried men
15. Most people who commit acts of bestiality keep to themselves
16. People convicted for acts of bestiality should never be released from prison

Appendix B: Modified ABCS

Participants are required to rank the items on a 5-point Likert scale from 1 for 'strongly disagree' to 5 'strongly agree,' with 3 as the neutral point of neither agreement nor disagreement. Higher scores reflect stronger agreement with offence-supportive statements indicative of the presence of cognitive distortions.

Sexual Objectification of Animals

17. Most animals would enjoy having sex with a human
18. Human-animal sexual contact would not harm the animal.
19. A human having sexual contact with an animal or having the animal initiate sexual contact with the human will not cause the animal any harm.
20. If an animal has sex with a human, the animal will look back at the experience and see it as a positive experience.
21. An animal can make her (his) own decision as to whether she (he) wants to have sex with a human or not.
22. People show their love and affection to an animal by having sex with her (him).
23. If an animal stares at someone's genitals it means the animal likes what she (he) sees and is enjoying watching their genitals.
24. Sometime in the future, our society will realize that sex between an animal and a human is acceptable.
25. A relationship with a pet or other animal is strengthened by sexual contact.
26. A human feeling an animal's body all over with sexual intent without touching the animals' genitals is not really being sexual with the animal.
27. Sexual thoughts about an animal are not that bad because they do not really hurt the animal.

Justification

28. A person is justified in having sex with a pet or other animal, if the person's significant other is not interested in having sex.
29. An animal who does not physically resist a human's sexual advances, really wants to have sex with the human.
30. When an animal has sex with a human, it helps the animal learn how to relate to humans in the future.
31. If an animal shows flirtatious behavior with a human, it means he (she) wants to have sex with the human.
32. It's better to have sex with a pet (or other animal) than to have an affair with a human.

Animals as Sexual Agents

33. When an animal sniffs or shows interests in a human's genital area, it means the animal desires to see the human's sex organs or have sex with the human.
34. An animal will not engage in sexual activity with a human unless the animal really wants to.
35. If someone coaxes or shows an animal what to do sexually and the animal cooperates that means the animal will always do it because s/he really wants to.
36. When animals watch humans masturbate, it helps the animal learn about sex.

Denial of Sex Offender Status

37. Animals who have had sexual activity with more than one human probably are doing something to attract humans to them.
38. A human can tell if having sex with an animal will emotionally damage the animal in the future.
39. A human can know just how much sex between him (her) and an animal will hurt the animal later on.
40. Sometimes people who are criminally prosecuted for engaging in sexual contact with an animal suffer, lose, or are hurt the most.
41. Some people who have sex with animals are not true “offenders” – they are out of control and make a mistake.
42. For many people, sexual acts toward animals are the result of stress and the behavior helped to relieve the stress.

Emphasis on Cognitive Elements

43. Because people have higher sexual needs than animals, it is not always possible for people to control sexual urges.
44. If a person is attracted to sex with animals, s/he should solve that problem themselves and not talk to professionals.
45. There is no effective treatment for bestiality.
46. When an animal presents their genital region to a human, s/he is trying to arouse them.

Power and Entitlement

47. A person has the right to have sex with an animal whenever it is needed.
48. The only way a person could do harm to an animal when having sex with her (him) would be to use physical force to get her (him) to have sex.
49. Animals are supposed to do what humans want and this might include serving their sexual needs.
50. People who engage in sexual acts with animals feel more comfortable with animals than humans.
51. Sex between an animal and a human causes the animal no problems.

Novel Question/STABLE -2007 item

52. Instances where a human is sexually penetrated by an animal are less serious than when a human penetrates an animal
53. People who have sexual contact with animals don't have satisfying relationships with other people
54. An animal can uniquely understand a human's sexual needs
55. I am interested in animal-like activities (e.g., wearing a dog collar, being walked on a leash, wearing a saddle and/or bit)

Appendix C: SIA-SR

Questions are rated on a 7-point scale anchored at 1 (Strongly disagree) and 7 (strongly agree). Numbers are not indicated in the response options, only the labels as shown below. (R) indicates a reverse scored item. ¹Zoophilia subscale, ²Opportunism subscale, ³Zoosadism subscale, ⁴Furryism subscale.

	Strongly Disagree	Slightly Disagree	Disagree	Neutral	Agree	Slightly Agree	Strongly Agree
1.							I am excited by the thought of having sexual contact with animals ¹
2.							I like my human sexual partners to act like an animal, for instance, through pet play, pony play, ponyism, or pup-play. ⁴
3.							I like to act like an animal during sexual intercourse or foreplay with humans ⁴
4.							I keep a pet for romantic companionship ¹
5.							I allow the animal to show consent to sexual intercourse (R) ¹
6.							I would not harm an animal during sexual intercourse (R) ³
7.							I feel romantic love for my pet, but I would never have sex with them ¹
8.							I fantasize about sexual acts with animals ¹
9.							I masturbate while thinking about animals ¹
10.							I masturbate while animals are present to heighten sexual arousal ¹
11.							I masturbate while watching animals copulate ¹
12.							I masturbate while watching pornography featuring animal-human sexual contact ¹
13.							I watch pornography featuring animal-human sexual contact ¹
14.							I have dreams involving sexual acts with animals ¹
15.							I fantasize about sexual acts with animals, but I would never have sex with an animal (R) ²
16.							I'm sexually excited by touching the genital and anal regions of animals ¹
17.							I rub my genitals on animals for sexual to heighten sexual excitement ¹
18.							I get sexually excited by objects that remind me of animals (e.g., furs, animal teeth, reptile skin) ⁴
19.							I get sexually excited by animals in pain ³
20.							I inflict pain on animals to receive sexual to heighten sexual excitement ³
21.							I would have sex with a human if they were available ¹
22.							I prefer to have sex with humans (R) ²
23.							I wouldn't turn down the opportunity to have sex with an animal ¹
24.							I have no romantic interest in animals but I would still have sex with them (R) ²
25.							I prefer to have sex with animals rather than humans ¹
26.							I love animals romantically ¹
27.							I get "crushes" on animals ¹
28.							I prefer to have sex with dead animals ³
29.							I get sexually excited from killing animals ³
30.							I am sexually attracted to humans (R) ²
31.							I would have sex with a human if they were available (R) ²
32.							Animals can reciprocate my romantic feelings and attractions ¹
33.							Animals can reciprocate my sexual feelings and attractions ¹

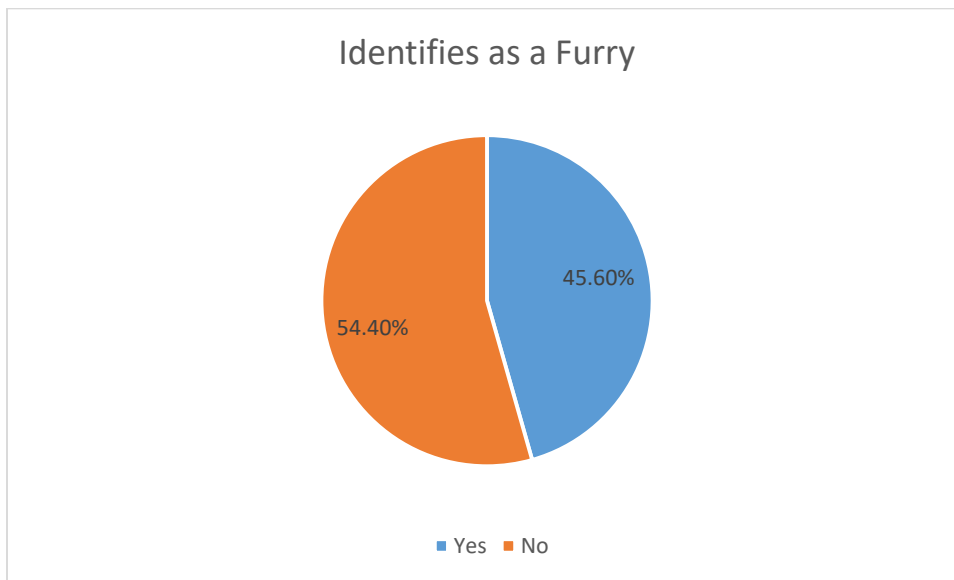
34. I am interested in animals with human qualities or the idea of being an anthropomorphized animal⁴
35. I get sexually excited by media (e.g., drawings, videos, gifs) of anthropomorphized animals⁴
36. I get sexually excited from wearing a fursuit⁴
37. I get sexually excited from sexualized contact with others wearing fursuits (yiffing)⁴

Appendix D: Demographics for Participants from Zooville

There were approximately 796 participants from across the Zooville links that provided demographic information. Some totals may not add up to 796 as some individuals may have chosen not to answer certain questions.

Furry Identity

Identifies as a Furry	Frequency
Yes	372
No	444

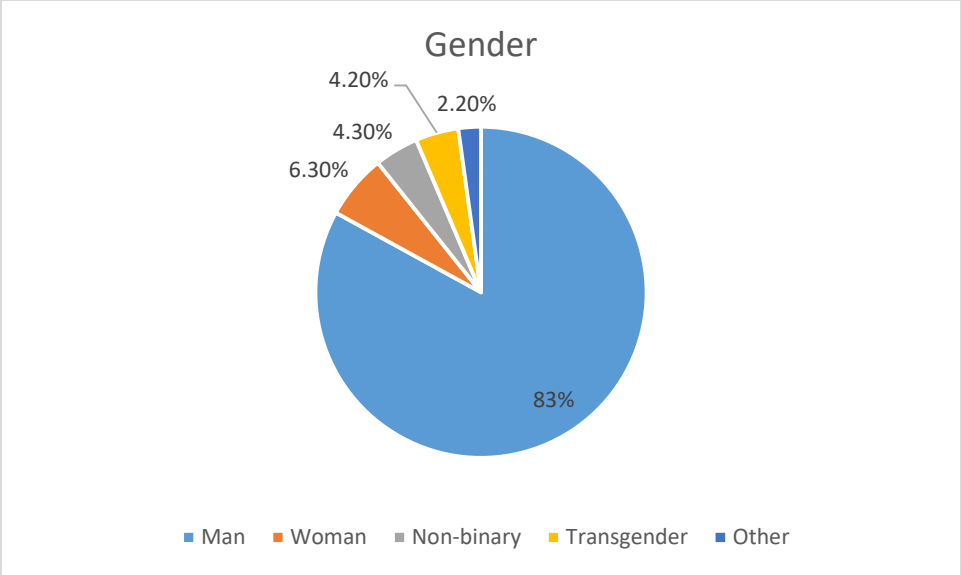


Age

The mean age for participants from Zooville was 28.77 (SD = 10.08) years. More than half of all participants (51%) were under the age of 26.

Gender

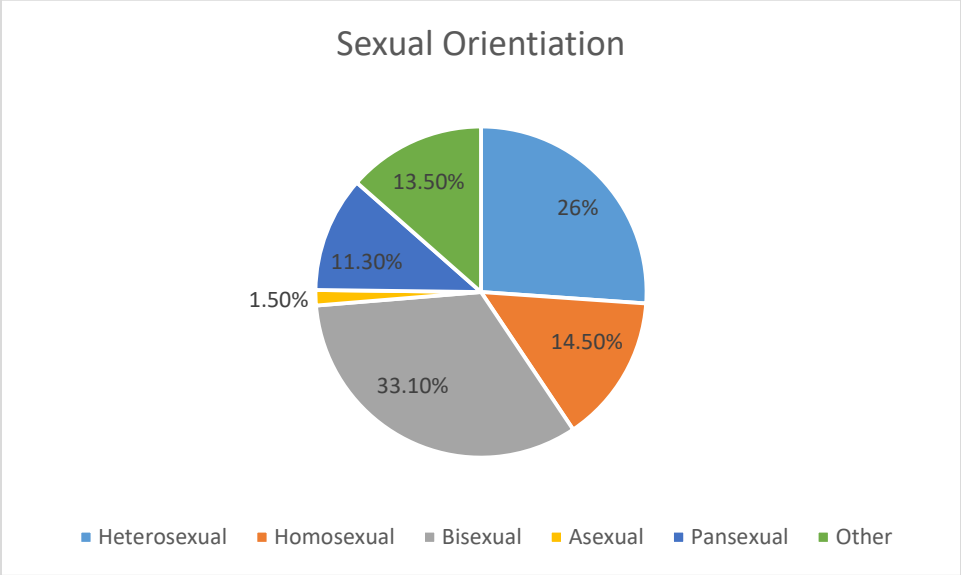
Gender	Frequency
Man	671
Woman	51
Non-binary	35
Transgender	34
Other	18



Other gender responses included responses such as agender, genderfluid, zoosexual, and other trans* and non-binary identities.

Sexual Orientation

Sexual Orientation	Frequency
Heterosexual	211
Homosexual	117
Bisexual	267
Asexual	12
Pansexual	91
Other	109



Other responses for gender included variations of asexuality, bisexuality, and demisexuality as well as queer and questioning. Many participants also made distinctions between their attraction to humans and animals.

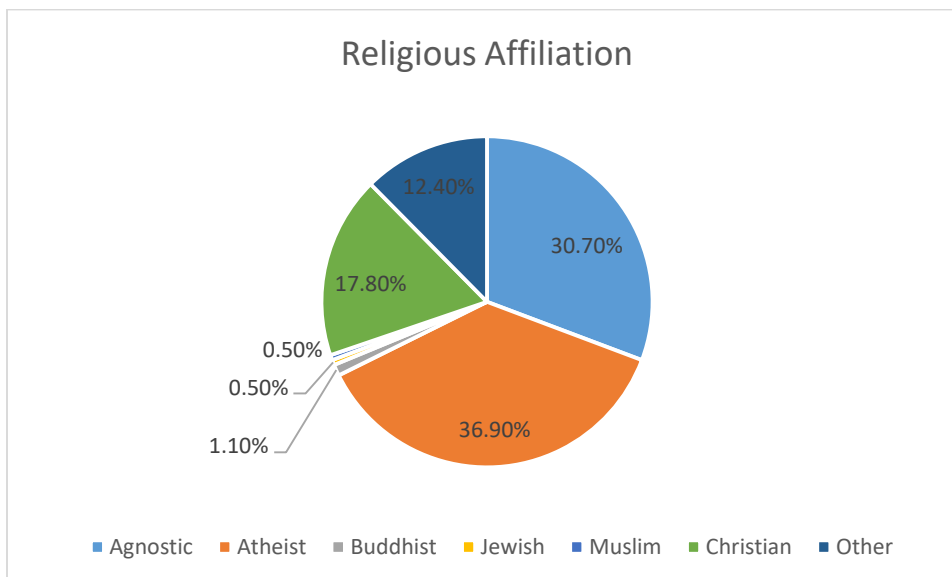
Race/Ethnicity

Race/Ethnicity	Frequency
Caucasian	658
Black	7
East Asian	4
South Asian	4
South East Asian	8
Middle Eastern	10
West Indian	1
Hispanic/Latin	52
Native/Aboriginal/Indigenous	13
Other	35

Other races/ethnicities reported included mixed heritage and unknown heritage.

Religious Affiliation

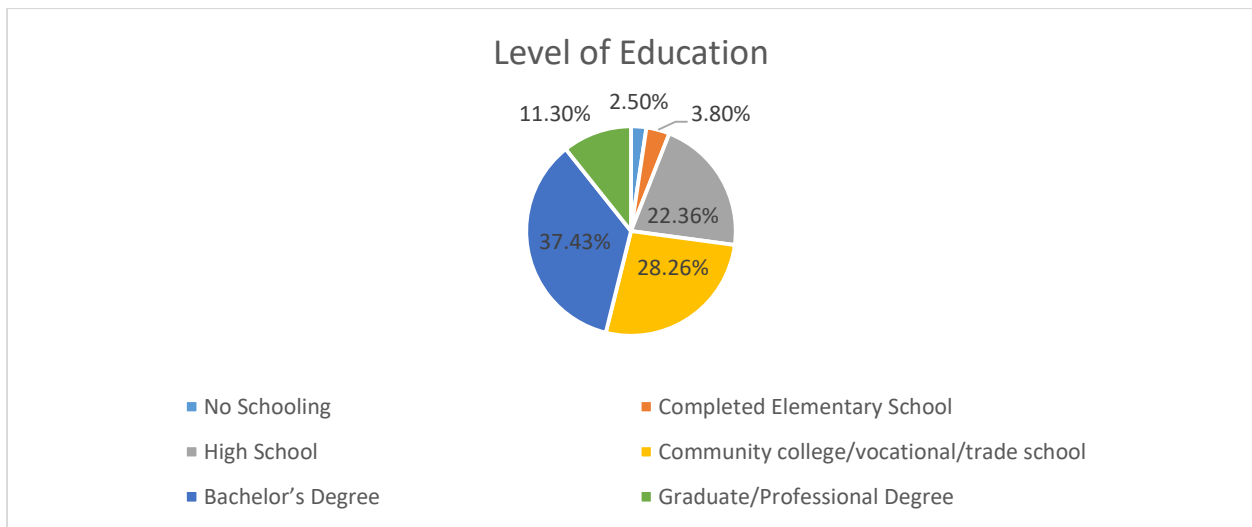
Religion	Frequency
Agnostic	243
Atheist	292
Buddhist	9
Jewish	4
Muslim	4
Christian	141
Other	98



Other religious affiliations reported included spiritual, pagan denominations, Satanist denominations, “none,” scientology, Indigenous religions, Wiccan, and other smaller denominations of the religions included in the survey responses.

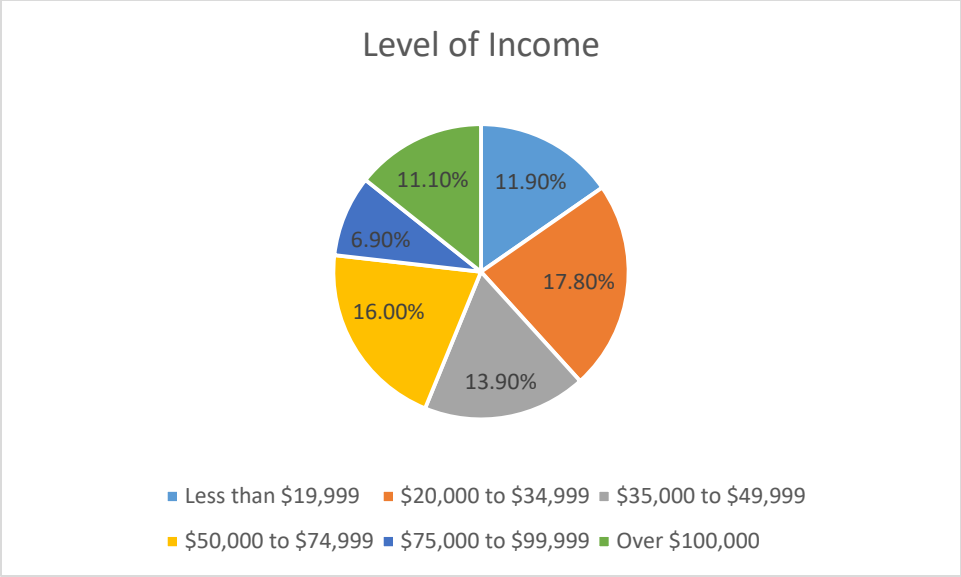
Highest Level of Education

Level of Education	Frequency
No Schooling	2
Completed Elementary School	3
High School	178
Community college/vocational/trade school	225
Bachelor’s Degree	298
Graduate/Professional Degree	90



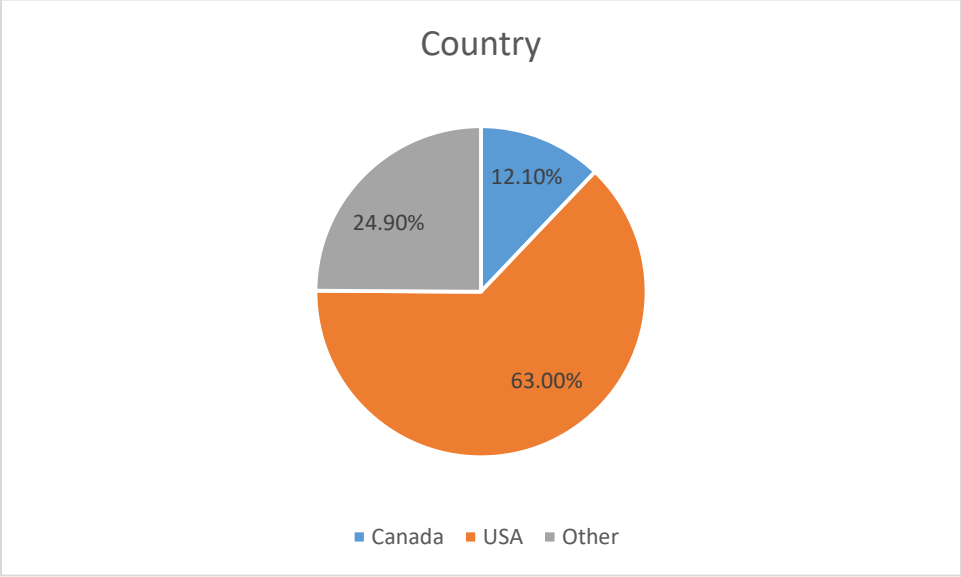
Income

Income Level	Frequency
Less than \$19,999	94
\$20,000 to \$34,999	141
\$35,000 to \$49,999	110
\$50,000 to \$74,999	127
\$75,000 to \$99,999	55
Over \$100,000	88



Country

Country	Frequency
Canada	96
USA	501
Other	198



Other countries included Argentina, Aruba, Australia, Austria, Bangladesh, Brazil, Belize, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Iceland, India, Indonesia Ireland, Israel, Italy, Lithuania, Malaysia, Mexico, Netherlands, New Zealand, Poland, Portugal, Romania, Russia, Scotland, South Africa, Spain, Sweden, Switzerland, Thailand, United Kingdom, and Uruguay.

Appendix E: Supplemental Tables

Table 3-S1.

Specialties Reported

Specialty	Frequency
None/General Practice	27
Anesthesia and Analgesia	3
Animal Welfare	1
Equine Surgery	1
Herd Medicine	1
Laboratory Animal Medicine	4
Laboratory Animal Technologist	2
Large Animal Medicine	3
Management	1
Pharmacology	1
Shelter Medicine	1
Theriogenology	1
Veterinary Behaviourist	2
Veterinary Cardiology	1
Veterinary Emergency and Critical Care	4
Veterinary Oncology	1
Veterinary Ophthalmology	1
Veterinary Pathology	3
Veterinary Radiology	1
Veterinary Toxicology	1
Wildlife	1

Table 4-S1
Correlations among sexual attractiveness variables

Variables	1	2	3	4	5	6	7	8	9
1.Furry identity	-								
2.Zoophile Identity	.318**	-							
3.Dog sexual attractiveness	.312**	.579**	-						
4.Cat sexual attractiveness	.069*	.026	<i>.364**</i>	-					
5.Fowl sexual attractiveness	.057*	-.040	<i>.221**</i>	<i>.470**</i>	-				
6. Cow sexual attractiveness	.169**	<i>.309**</i>	<i>.473**</i>	<i>.276**</i>	<i>.378**</i>	-			
7.Horse sexual attractiveness	<i>.279**</i>	.552**	.628**	<i>.213**</i>	<i>.213**</i>	.605**	-		
8. Pig sexual attractiveness	.046	<i>.244**</i>	<i>.451**</i>	<i>.273**</i>	<i>.315**</i>	.688**	<i>.456**</i>	-	
9. Sheep sexual attractiveness	<i>.164**</i>	<i>.269**</i>	<i>.486**</i>	<i>.368**</i>	.501**	.694**	.566**	.633**	-

Note: ** p < .01, * p < .05. Large correlations in bold font, medium correlations in italics, small or subthreshold effects in standard font.

Table 4-S2
Correlations among cuteness variables

Variables	1	2	3	4	5	6	7	8	9
1.Furry identity	-								
2.Zoophile Identity	.318**	-							
3.Dog cuteness	.122**	.014	-						
4.Cat cuteness	.131**	.015	.584**	-					
5.Fowl cuteness	.024	-.214**	<i>.414**</i>	<i>.467**</i>	-				
6. Cow cuteness	.134**	.084**	<i>.429**</i>	<i>.466**</i>	.564**	-			
7.Horse cuteness	.123**	.145**	<i>.451**</i>	<i>.398**</i>	<i>.446**</i>	.599**	-		
8. Pig cuteness	.060*	.067*	<i>.460**</i>	<i>.415**</i>	.587**	.630**	<i>.481**</i>	-	
9. Sheep cuteness	.136**	.064*	<i>.495**</i>	<i>.496**</i>	.664**	.682**	.614**	.713**	-

Note: ** $p < .01$, * $p < .05$. Large correlations in bold font, medium correlations in italics, small or subthreshold effects in standard font.

Table 4-S3
Correlations among romantic attractiveness variables

Variables	1	2	3	4	5	6	7	8	9
1.Furry identity	-								
2.Zoophile Identity	.318**	-							
3.Dog romantic attractiveness	.279**	.423**	-						
4.Cat romantic attractiveness	.097**	.070*	.509**	-					
5.Fowl romantic attractiveness	-.097**	-.291**	.132**	<i>.466**</i>	-				
6. Cow romantic attractiveness	.153**	.200**	<i>.492**</i>	<i>.414**</i>	<i>.378**</i>	-			
7.Horse romantic attractiveness	.245**	<i>.393**</i>	.625**	<i>.367**</i>	.150**	.595**	-		
8. Pig romantic attractiveness	.047	.155**	<i>.461**</i>	<i>.375**</i>	<i>.346**</i>	.605**	<i>.440**</i>	-	
9. Sheep romantic attractiveness	.121**	.154**	.525**	.533**	<i>.467**</i>	.709**	.573**	.667**	-

Note: ** p < .01, * p < .05. Large correlations in bold font, medium correlations in italics, small or subthreshold effects in standard font.

Appendix F: Survey for Animal Care Professionals

Training

56. During your academic training and preparation, did you receive information on:
1. Non-accidental injury (y/n)
 2. Neglect (y/n)
 3. Large-scale neglect (i.e., hoarding) (y/n)
 4. Fighting (e.g., dog fighting) (y/n)
57. How frequently do you think each of the following occurs?
- | Never | | | | | | | Frequently |
|-------|----|-----------------------|---|---|---|---|------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 7 |
| | 1. | Non-accidental injury | | | | | |
| | 2. | Neglect | | | | | |
| | 3. | Large-scale neglect | | | | | |
| | 4. | Fighting | | | | | |
58. Have you received information/training on neglect, non-accidental injury, and fighting reporting requirements in your province/territory/state? (y/n)
59. If you did receive information on neglect, non-accidental injury, and fighting during your formal education, how many hours of training would you estimate were devoted to the topics?
1. 1-5
 2. 6-10
 3. 11-15
 4. 16+
60. If you did receive information on neglect, non-accidental injury, and fighting, how many classes covered to the topics? _____
61. Which classes discussed neglect, non-accidental injury, and fighting? _____
62. Did you receive training/information about neglect, non-accidental injury, and fighting during your placements/residencies/internships? (Yes/No)
63. I have received enough information/training about neglect, non-accidental injury, and fighting?
- | Strongly Disagree | | | | | | | Strongly Agree |
|-------------------|-----|---|---|---|---|---|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 7 |
| | 64. | If you do not feel that you have received enough information/training about neglect, non-accidental injury, and fighting, what were the barriers to receiving that information? | | | | | |
| | 65. | Where do you typically get your information about neglect, non-accidental injury, and fighting and implications for veterinary practice? (Please select all that apply) | | | | | |
| | | 1. Veterinary/veterinary technician school | | | | | |
| | | 2. Special training opportunity (e.g., Continuing Education credits, seminars, webinars) | | | | | |
| | | 3. Veterinary conferences | | | | | |
| | | 4. Academic literature | | | | | |
| | | 5. The internet | | | | | |

- 6. Media
 - 7. Peers/Other animal care professionals
 - 8. Other (please specify):
66. How often do you review case studies in journals that pertain to neglect, non-accidental injury, and fighting?
- | | | | | | | |
|-------|-------------|-----------------------|-----------------|------------------------|-------------|-------|
| Never | Once a year | A few times
a year | Once a
month | A few times
a month | Once a week | Daily |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
67. Would you like to receive more training/information on neglect, non-accidental injury, and fighting and implications for veterinary practice? (Yes/No)
68. What type of training would you like to receive/have more of? _____
69. Have you ever heard the term bestiality or zoophilia?
- 1. Yes, bestiality
 - 2. Yes, zoophilia
 - 3. Yes, both
 - 4. No
70. Describe what bestiality means in your own words: _____
71. Choose number 5 from the options below:
- a) 23
 - b) 5
 - c) 1
 - d) 345
- 72.

.....

“Bestiality or animal sexual abuse (ASA), like rape, is the erotization of violence, control, and exploitation. ASA includes the sexual molestation of animals by humans, including a wide range of behaviors, such as fondling genitalia; vaginal, anal, or oral penetration or oral-genital contact (from person to animal and vice versa); penetration with an object; and injuring or killing an animal for sexual gratification (zoosadism). The ways that ASA may result in a fatality or injury to the animal victim differs with the activity. ASA is an activity that may be perpetrated by men and women; however, only men can penetrate an animal with a penis and ejaculate on or in the animal.” – Stern and Smith-Blackmore (2016)

.....

73. Knowing about animal sexual abuse is important for me as an animal care professional
- | | | | | | | |
|----------------------|---|---|---|---|---|-------------------|
| Strongly
Disagree | | | | | | Strongly
Agree |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
74. How frequently do you think animal sexual abuse occurs?
- | | | | | | | |
|-------|---|---|---|---|---|------------|
| Never | | | | | | Frequently |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
75. During your training, did you receive any information on animal sexual abuse? (Yes/No)
76. If you did receive information on animal sexual abuse during your formal education, how many hours of training would you estimate were devoted to the topic?

1. 1-5
 2. 6-10
 3. 11-15
 4. 16+
77. If you did receive information on animal sexual abuse, how many classes covered to the topic? _____
78. Which classes discussed animal sexual abuse? _____
79. Did you receive training/information about animal sexual abuse during your placements/residencies/internships? (Yes/No)
80. Have you received information/training on animal sexual abuse reporting requirements in your province/territory/state? (y/n)
81. I have received enough information/training about animal sexual abuse?
- | | | | | | | | |
|----------------------|---|---|---|---|---|---|-------------------|
| Strongly
Disagree | | | | | | | Strongly
Agree |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
82. If you do not feel that you have received enough information/training animal sexual abuse, what were the barriers to receiving that information?

83. Where do you typically get your information about animal sexual abuse and implications for veterinary practice? (Please select all that apply)
1. Veterinary/veterinary technician school
 2. Special training opportunity (e.g., Continuing Education credits, seminars, webinars)
 3. Veterinary conferences
 4. Academic literature
 5. The internet
 6. Media
 7. Peers/Other animal care professionals
 8. Other (please specify):
84. How often do you review case studies in journals that pertain to the sexual abuse of animals?
- | | | | | | | |
|-------|-------------|-----------------------|-----------------|------------------------|-------------|-------|
| Never | Once a year | A few times
a year | Once a
month | A few times
a month | Once a week | Daily |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
85. Would you like to receive more training/information on animal sexual abuse and implications for veterinary practice? (Yes/No)
86. What type of training would you like to receive/have more of? _____

Practice

87. In your time as student or practicing animal care professional, have you ever had a suspected case of animal sexual abuse? (Yes/No)
88. If yes, how many suspected cases have you seen? _____
89. Please describe the case(s) including the species of the victim(s): _____

90. What caused you to become suspicious? (Please select all that apply)
1. Type of injury
 2. Location of injury
 3. Utterance by owner
 4. Animal temperament
 5. Relationship/Interactions between animals and owner
 6. Suspicious events mentioned in previous medical records/history
 7. Other (please specify):
91. In your time as a student or practicing animal care professional, have you ever had a confirmed case of animal sexual abuse? (Yes/No)
92. If yes, how many confirmed cases have you seen? _____
93. Please describe the case(s) including the species of the victim(s): _____
94. How did you confirm the case of animal sexual abuse? (Please select all that apply)
1. Type of injury
 2. Location of injury
 3. Utterance by owner
 4. Animal temperament
 5. Relationship/Interactions between animals and owner
 6. Suspicious events mentioned in previous medical records/history
 7. Other (please specify):
95. In practice, have you ever encountered each of the following injuries?
- | | Definite | Suspected |
|---------------------------|-----------------|------------------|
| Type of Injury | | |
| Internal Vaginal Injuries | | |
| External Vaginal Injuries | | |
| Penile Injuries | | |
| Testicular Injuries | | |
| Rectal Injuries | | |
| Perianal Injuries | | |
| Buccal Injuries | | |
| Injuries to the Throat | | |
96. What are the reporting laws pertaining to abuse (including animal sexual abuse) in your province/territory/state? _____
97. If you have been the veterinarian on a suspected or confirmed case of animal sexual abuse, what was your response? (Please select all that apply)
1. Called police
 2. Called an animal protection agency (e.g., a humane society, the SPCA)
 3. Spoke with owner
 4. Made note on file
 5. Spoke with superior/supervisor
 6. Nothing
98. If you have reported a case of suspected or confirmed animal sexual abuse, who did you report it to and what was their response? _____
99. In the future, if you were to encounter a case of animal sexual abuse, what would be your response? _____

100. Who is the most appropriate person to report instances of suspected or confirmed animal sexual abuse?
 1. Police
 2. Animal protection agencies (e.g., a humane society, the SPCA)
 3. A superior/supervisor
 4. Other (please specify):
101. Choose 25 from the options below:
 - a) 3
 - b) 2345
 - c) 25
 - d) 1

Criminal Justice Perceptions

Modified CATSO

Items are rated on a 6-point Likert scale with the following options: "strongly disagree," "disagree," "probably disagree," "probably agree," "agree," and "strongly agree."

102. With support and therapy, someone who committed an act of sexual abuse toward an animal can learn to change their behaviour.
103. People who commit acts of sexual abuse toward animals should lose their civil rights (e.g., voting and privacy)
104. People who commit acts of sexual abuse toward animals want to have sex more often than the average person
105. A lot of people who commit acts of bestiality use their animal victims to create pornography
106. Sexual fondling of an animal is not as bad as intercourse with the animal
107. People who commit acts of bestiality prefer to stay home alone rather than be around lots of people
108. Most people who commit acts of bestiality do not have close friends
109. People who commit acts of bestiality have difficulty making friends despite their best efforts
110. The prison sentences for people who sexually abuse animals are too long compared to the sentence lengths for other crimes
111. People who commit acts of bestiality have high rates of sexual activity
112. Trying to rehabilitate somebody who has sexually abused an animal is a waste of time
113. People convicted for animal sexual abuse should wear tracking devices so their location can be pinpointed at any time
114. Few people who commit acts of bestiality are dangerous to the general public
115. Most people who commit acts of bestiality are unmarried men
116. Most people who commit acts of bestiality keep to themselves
117. People convicted for acts of bestiality should never be released from prison

Modified ABCS

Participants are required to rank the items on a 5-point Likert scale from 1 for 'strongly disagree' to 5 'strongly agree,' with 3 as the neutral point of neither agreement nor

disagreement. Higher scores reflect stronger agreement with offence-supportive statements indicative of the presence of cognitive distortions.

Sexual Objectification of Animals

118. Most animals would enjoy having sex with a human
119. Human-animal sexual contact would not harm the animal.
120. A human having sexual contact with an animal or having the animal initiate sexual contact with the human will not cause the animal any harm.
121. If an animal has sex with a human, the animal will look back at the experience and see it as a positive experience.
122. An animal can make her (his) own decision as to whether she (he) wants to have sex with a human or not.
123. People show their love and affection to an animal by having sex with her (him).
124. If an animal stares at someone's genitals it means the animal likes what she (he) sees and is enjoying watching their genitals.
125. Sometime in the future, our society will realize that sex between an animal and a human is acceptable.
126. A relationship with a pet or other animal is strengthened by sexual contact.
127. A human feeling an animal's body all over with sexual intent without touching the animals' genitals is not really being sexual with the animal.
128. Sexual thoughts about an animal are not that bad because they do not really hurt the animal.

Justification

129. A person is justified in having sex with a pet or other animal, if the person's significant other is not interested in having sex.
130. An animal who does not physically resist a human's sexual advances, really wants to have sex with the human.
131. When an animal has sex with a human, it helps the animal learn how to relate to humans in the future.
132. If an animal shows flirtatious behavior with a human, it means he (she) wants to have sex with the human.
133. It's better to have sex with a pet (or other animal) than to have an affair with a human.

Animals as Sexual Agents

134. When an animal sniffs or shows interests in a human's genital area, it means the animal desires to see the human's sex organs or have sex with the human.
135. An animal will not engage in sexual activity with a human unless the animal really wants to.
136. If someone coaxes or shows an animal what to do sexually and the animal cooperates that means the animal will always do it because s/he really wants to.
137. When animals watch humans masturbate, it helps the animal learn about sex.

Denial of Sex Offender Status

138. Animals who have had sexual activity with more than one human probably are doing something to attract humans to them.
139. A human can tell if having sex with an animal will emotionally damage the animal in the future.

- 140. A human can know just how much sex between him (her) and an animal will hurt the animal later on.
- 141. Sometimes people who are criminally prosecuted for engaging in sexual contact with an animal suffer, lose, or are hurt the most.
- 142. Some people who have sex with animals are not true “offenders” – they are out of control and make a mistake.
- 143. For many people, sexual acts toward animals are the result of stress and the behavior helped to relieve the stress.

Emphasis on Cognitive Elements

- 144. Because people have higher sexual needs than animals, it is not always possible for people to control sexual urges.
- 145. If a person is attracted to sex with animals, s/he should solve that problem themselves and not talk to professionals.
- 146. There is no effective treatment for bestiality.
- 147. When an animal presents their genital region to a human, s/he is trying to arouse them.

Power and Entitlement

- 148. A person has the right to have sex with an animal whenever it is needed.
- 149. The only way a person could do harm to an animal when having sex with her (him) would be to use physical force to get her (him) to have sex.
- 150. Animals are supposed to do what humans want and this might include serving their sexual needs.
- 151. People who engage in sexual acts with animals feel more comfortable with animals than humans.
- 152. Sex between an animal and a human causes the animal no problems.

Novel Question/STABLE -2007 item

- 153. Instances where a human is sexually penetrated by an animal are less serious than when a human penetrates an animal
- 154. People who have sexual contact with animals don’t have satisfying relationships with other people
- 155. An animal can uniquely understand a human’s sexual needs
- 156. I am interested in animal-like activities (e.g., wearing a dog collar, being walked on a leash, wearing a saddle and/or bit)

General CJ Perceptions

- 157. Choose 25 from the options below:

- e) 3
- f) 2345
- g) 25
- h) 1

- 158. Individuals who commit sexual abuse against animals should be put in prison

Strongly Disagree							Strongly Agree
1	2	3	4	5	6	7	

159. Individuals who commit sexual abuse against animals should be placed on a registry of sexual offenders

1. Yes, a public registry
2. Yes, a registry accessible only to the police
3. No

160. What should the punishment for sexual abuse against animals be? (Please select all that apply):

1. Prison
2. Community Service
3. Therapy
4. Other (please specify):

161. If you think that individuals should be sent to prison, how long should the typical sentence be? ____ (in years)

162. How would you classify the current criminal justice response to animal sexual abuse offenders?

Too Lenient			Appropriate			Too Harsh
1	2	3	4	5	6	7

163. Who bears the most responsibility for preventing sexual abuse against animals? ____

164. Veterinary professionals have a moral and/or legal responsibility to intervene where they suspect animal sexual abuse

Strongly Disagree						Strongly Agree
1	2	3	4	5	6	7

165. Veterinarians, like individuals who work with children, have a duty to report sexual abuse against their patients

Strongly Disagree						Strongly Agree
1	2	3	4	5	6	7

166. Veterinarians would be some of the first people to notice sexual abuse against an animal

Strongly Disagree						Strongly Agree
1	2	3	4	5	6	7

167. Individuals who commit sexual offences against animals should be barred from ever owning a pet

Strongly Disagree						Strongly Agree
1	2	3	4	5	6	7

168. Individuals who commit sexual abuse against animals should be barred from ever working with animals

Strongly Disagree						Strongly Agree
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176. Are you currently attending some kind of formal school or educational program?
1. Yes
 2. No
177. If you answered “yes”, what kind of educational program are you currently attending?
178. What is the highest level of formal education that you have completed/are completing?
1. Doctor of Veterinary Medicine (DVM) or equivalent
 2. DVM (or equivalent) and PhD
 3. Registered veterinary technician/technologist degree
 4. Other (please specify):
179. Do you currently have an area of specialization?
1. No/General Practice (GP)
 2. Anesthesia and Analgesia
 3. Animal Welfare
 4. Avian
 5. Equine Surgery
 6. Exotics
 7. Fish
 8. Herd Medicine
 9. Laboratory Animal Medicine
 10. Large Animal Medicine
 11. Poultry
 12. Theriogenology
 13. Veterinary Behaviourist
 14. Veterinary Cardiology
 15. Veterinary Clinical Pharmacology
 16. Veterinary Dentistry
 17. Veterinary Dermatology
 18. Veterinary Emergency and Critical Care
 19. Veterinary Internal Medicine
 20. Veterinary Microbiology
 21. Veterinary Neurology
 22. Veterinary Nutrition
 23. Veterinary Ophthalmology
 24. Veterinary Pathology
 25. Veterinary Preventative Medicine
 26. Veterinary Radiology
 27. Veterinary Sports Medicine and Rehabilitation
 28. Veterinary Surgery
 29. Veterinary Toxicology
 30. Zoological Medicine
 31. Other (please specify)
180. If you are a GP, what type of practice do you work at?
1. Small Animal GP
 2. Farm GP
 3. Equine GP

4. Mixed Practice
181. Where did you complete your training?
Country:_____ Province/Territory/State:_____ City:_____
182. What country do you currently work in?
1. Canada
 2. United States of America
 3. Other (please specify):
183. If you currently work in the US or Canada, which province/territory/state do you currently work in?
1. Alabama
 2. Alaska
 3. Alberta
 4. American Samoa
 5. Arizona
 6. Arkansas
 7. British Columbia
 8. California
 9. Colorado
 10. Connecticut
 11. Delaware
 12. District of Columbia
 13. Florida
 14. Georgia
 15. Guam
 16. Hawaii
 17. Idaho
 18. Illinois
 19. Indiana
 20. Iowa
 21. Kansas
 22. Kentucky
 23. Louisiana
 24. Maine
 25. Manitoba
 26. Maryland
 27. Massachusetts
 28. Michigan
 29. Minnesota
 30. Mississippi
 31. Missouri
 32. Montana
 33. Nebraska
 34. Nevada
 35. New Brunswick
 36. New Hampshire
 37. New Jersey

38. New Mexico
39. New York
40. Newfoundland and Labrador
41. North Carolina
42. North Dakota
43. Northern Mariana Islands
44. Northwest Territories
45. Nova Scotia
46. Nunavut
47. Ohio
48. Oklahoma
49. Ontario
50. Oregon
51. Pennsylvania
52. Prince Edward Island
53. Puerto Rico
54. Quebec
55. Rhode Island
56. Saskatchewan
57. South Carolina
58. South Dakota
59. Tennessee
60. Texas
61. U.S. Virgin Islands
62. Utah
63. Vermont
64. Virginia
65. Washington
66. West Virginia
67. Wisconsin
68. Wyoming
69. Yukon

184. Where are you licensed to practice veterinary medicine? (Please select all that apply):

1. Africa
2. Asia
3. Australia
4. Europe
5. New Zealand
6. North America
7. South America
8. United Kingdom
9. Other (please specify):

185. How long have you worked in your current profession? ____ Years, ____ Months

186. Which of the following best describes where you currently work?

1. An urban centre (i.e. a mid-to-large sized city)

2. A rural centre (i.e. a farm, acreage, or small town)
187. How would you describe your political beliefs?
1. Very conservative
 2. Conservative
 3. Slightly conservative
 4. Middle of the road
 5. Slightly liberal
 6. Liberal
 7. Very liberal
- Prefer not to answer

Appendix G: Measuring Interest in Animals

Version A: General Public and Students

Image Ratings

“Animal” refers to non-human animals

Romantic attraction: A deep desire to have a committed, romantic relationship, not necessarily with a sexual component

Sexual attraction: A desire to have sexual contact

****These questions will be asked individually for each picture****

1. How cute is this animal?

Not At All Very
 1 2 3 4 5 6 7

2. How sexually attractive is this animal?

Not At All Very
 1 2 3 4 5 6 7

3. How romantically attractive is this animal?

Not At All Very

1	2	3	4	5	6	7
---	---	---	---	---	---	---

(On picture #1) Choose number 5 from the options below:

- e) 23
- f) 5
- g) 1
- h) 345

i) 1	2	3	4	5	6	7
------	---	---	---	---	---	---





























































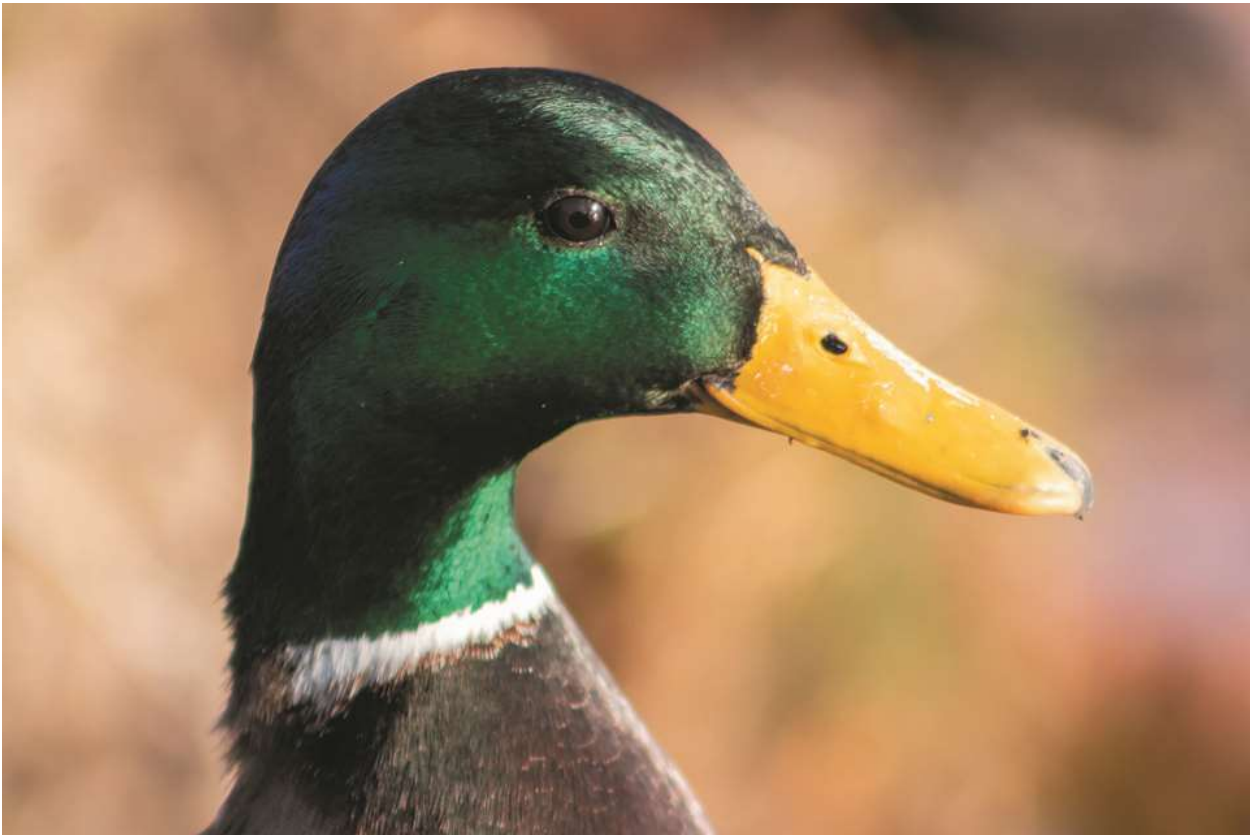






























4. What types of animals do you find cute? _____
5. What types of animals do you find sexually attractive? _____
6. What types of animals do you find romantically attractive? _____
7. Choose 1 from the options below:
 - a) 1
 - b) 34
 - c) 908
 - d) E

Scale Development

“Animal” refers to non-human animals

Romantic attraction: A deep desire to have a committed, romantic relationship, not necessarily with a sexual component

Sexual attraction: A desire to have sexual contact with

Anthropomorphized = to attribute human form or personality to things not human

Strongly Disagree	Slightly Disagree	Disagree	Neutral	Agree	Slightly Agree	Strongly Agree
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8. I am excited by the thought of having sexual contact with animals
9. I like my human sexual partners to act like an animal, for instance, through pet play, pony play, ponyism, or pup-play.
10. I like to act like an animal during sexual intercourse or foreplay with humans
11. I keep a pet for romantic companionship
12. I feel romantic love for my pet, but I would never have sex with them
13. I fantasize about sexual acts with animals
14. I masturbate while thinking about animals
15. I masturbate while animals are present to heighten sexual arousal
16. I masturbate while watching animals copulate
17. I masturbate while watching pornography featuring animal-human sexual contact
18. I watch pornography featuring animal-human sexual contact
19. I have dreams involving sexual acts with animals
20. I fantasize about sexual acts with animals, but I would never have sex with an animal
21. I'm sexually excited by touching the genital and anal regions of animals

22. I rub my genitals on animals for sexual to heighten sexual excitement
23. I get sexually excited by objects that remind me of animals (e.g., furs, animal teeth, reptile skin)
24. I get sexually excited by animals in pain
25. I inflict pain on animals to receive sexual to heighten sexual excitement
26. I would have sex with an animal if no one would ever know
27. I prefer to have sex with humans, but I wouldn't turn down the opportunity to have sex with an animal
28. I have no romantic interest in animals but I would still have sex with them
29. I strongly prefer to have sex with animals rather than humans
30. I love animals romantically
31. I get "crushes" on animals
32. I would get sexually excited by ordering someone else to have sexual relations with an animal
33. I prefer to have sex with dead animals
34. I get sexually excited from killing animals
35. I would choose sexual activity with animals even when a willing human is available
36. I think that animals can reciprocate my romantic feelings and attractions
37. I think that animals can reciprocate my sexual feelings and attractions
38. I am interested in animals with human qualities or the idea of being an anthropomorphized animal
39. I get sexually excited by media (e.g., drawings, videos, gifs) of anthropomorphized animals
40. I get sexually excited from wearing a fursuit
41. I get sexually excited from sexualized contact with others wearing fursuits (yiffing)

Other Sexual Interests

Multiple Paraphilic Interests Scale

Participants are asked to choose one of four possible responses for each item—1 =

"never," 2 = "once or twice," and 3 = "three or more times" over a period of at least 6 months and any history (4 = ever).

42. Voyeurism (the practice of gaining sexual pleasure from watching others when they are naked or engaged in sexual activity.)
43. Exhibitionism (the urge, fantasy, or act of exposing one's genitals to non-consenting people, particularly strangers)
44. Public Masturbation
45. Frotteurism (interest in rubbing one's pelvic area against a non-consenting person for sexual pleasure.)

46. Fetishism (the eroticization of nonliving objects [e.g., shoes, underwear, stockings] and/or body parts for sexual to heighten sexual excitement)
47. Sexual masochism (experiencing recurring and intense sexual arousal in response to enduring moderate or extreme pain, suffering, or humiliation)
48. Telephone Scatalogia (Obscene phone calls)
49. Sexual Sadism (experiencing sexual arousal in response to the extreme pain, suffering or humiliation of others)
50. Necrophilia (a sexual attraction or sexual act which involves corpses)

Cognitive Distortions

Modified ABCS

Participants are required to rank the items on a 5-point Likert scale from 1 for 'strongly disagree' to 5 'strongly agree,' with 3 as the neutral point of neither agreement nor disagreement. Higher scores reflect stronger agreement with offence-supportive statements indicative of the presence of cognitive distortions.

Sexual Objectification of Animals

51. Most animals would enjoy having sex with a human
52. Human-animal sexual contact would not harm the animal.
53. A human having sexual contact with an animal or having the animal initiate sexual contact with the human will not cause the animal any harm.
54. If an animal has sex with a human, the animal will look back at the experience and see it as a positive experience.
55. An animal can make her (his) own decision as to whether she (he) wants to have sex with a human or not.
56. People show their love and affection to an animal by having sex with her (him).
57. If an animal stares at someone's genitals it means the animal likes what she (he) sees and is enjoying watching their genitals.
58. Sometime in the future, our society will realize that sex between an animal and a human is acceptable.
59. A relationship with a pet or other animal is strengthened by sexual contact.
60. A human feeling an animal's body all over with sexual intent without touching the animals' genitals is not really being sexual with the animal.
61. Sexual thoughts about an animal are not that bad because they do not really hurt the animal.

Justification

62. A person is justified in having sex with a pet or other animal, if the person's significant other is not interested in having sex.
63. An animal who does not physically resist a human's sexual advances, really wants to have sex with the human.
64. When an animal has sex with a human, it helps the animal learn how to relate to humans in the future.
65. If an animal shows flirtatious behavior with a human, it means he (she) wants to have sex with the human.

66. It's better to have sex with a pet (or other animal) than to have an affair with a human.
Animals as Sexual Agents

67. When an animal sniffs or shows interests in a human's genital area, it means the animal desires to see the human's sex organs or have sex with the human.

68. An animal will not engage in sexual activity with a human unless the animal really wants to.

69. If someone coaxes or shows an animal what to do sexually and the animal cooperates that means the animal will always do it because s/he really wants to.

70. When animals watch humans masturbate, it helps the animal learn about sex.

Denial of Sex Offender Status

71. Animals who have had sexual activity with more than one human probably are doing something to attract humans to them.

72. A human can tell if having sex with an animal will emotionally damage the animal in the future.

73. A human can know just how much sex between him (her) and an animal will hurt the animal later on.

74. Sometimes people who are criminally prosecuted for engaging in sexual contact with an animal suffer, lose, or are hurt the most.

75. Some people who have sex with animals are not true "offenders" – they are out of control and make a mistake.

76. For many people, sexual acts toward animals are the result of stress and the behavior helped to relieve the stress.

Emphasis on Cognitive Elements

77. Because people have higher sexual needs than animals, it is not always possible for people to control sexual urges.

78. If a person is attracted to sex with animals, s/he should solve that problem themselves and not talk to professionals.

79. There is no effective treatment for bestiality.

80. When an animal presents their genital region to a human, s/he is trying to arouse them.

Power and Entitlement

81. A person has the right to have sex with an animal whenever it is needed.

82. The only way a person could do harm to an animal when having sex with her (him) would be to use physical force to get her (him) to have sex.

83. Animals are supposed to do what humans want and this might include serving their sexual needs.

84. People who engage in sexual acts with animals feel more comfortable with animals than humans.

85. Sex between an animal and a human causes the animal no problems.

Novel Question/STABLE -2007 item

86. Instances where a human is sexually penetrated by an animal are less serious than when a human penetrates an animal

87. People who have sexual contact with animals don't have satisfying relationships with other people

88. An animal can uniquely understand a human's sexual needs

89. I am interested in animal-like activities (e.g., wearing a dog collar, being walked on a leash, wearing a saddle and/or bit)

Group Membership

90. Are you part of the Furry community?
91. Do you identify as someone with a sexual interest in animals (zoophilia)?
92. Choose 25 from the options below:
i) 3
j) 2345
k) 25
l) 1

Demographics

93. How old are you (in years)? _____
94. What is your gender?
1. Man
2. Woman
3. Non-Binary
4. Transgender
5. Other (please specify):
95. What is your sexual orientation?
1. Heterosexual
2. Homosexual
3. Bisexual
4. Asexual
5. Pansexual
6. Other (please specify):
96. What is your race/ethnicity?
1. Caucasian
2. Black
3. East Asian
4. South Asian
5. South East Asian
6. Middle Eastern
7. West Indian
8. Hispanic/Latino
9. Native/Aboriginal/Indigenous
10. Other (please specify):
97. What is the highest level of formal education that you have completed/are completing?
1. Some elementary school (Grades 1-7)
2. Completed elementary school (Grade 8)
3. Some high school (grades 9-11)
4. Completed high school (Grade 12 or 13)
5. Some community college/vocational/trade school/CEGEP
6. Diploma or certificate from community college/vocational/trade school/CEGEP

7. Some university
 8. Completed university (Bachelor's degree)
 9. Some graduate/professional school (Master's degree, PhD, LLB, M.D, M.Ed, etc)
 10. Completed graduate school (Master's degree, PhD, LLB, M.D, M.Ed, etc)
 11. No schooling
98. What country do you currently live in?
1. Canada
 2. United States of America
 3. Other (please specify):
99. Which province/territory/state do you currently live in?
1. Alabama
 2. Alaska
 3. Alberta
 4. American Samoa
 5. Arizona
 6. Arkansas
 7. British Colombia
 8. California
 9. Colorado
 10. Connecticut
 11. Delaware
 12. District of Colombia
 13. Florida
 14. Georgia
 15. Guam
 16. Hawaii
 17. Idaho
 18. Illinois
 19. Indiana
 20. Iowa
 21. Kansas
 22. Kentucky
 23. Louisiana
 24. Maine
 25. Manitoba
 26. Maryland
 27. Massachusetts
 28. Michigan
 29. Minnesota
 30. Mississippi
 31. Missouri
 32. Montana
 33. Nebraska
 34. Nevada
 35. New Brunswick
 36. New Hampshire

37. New Jersey
 38. New Mexico
 39. New York
 40. Newfoundland and Labrador
 41. North Carolina
 42. North Dakota
 43. Northern Mariana Islands
 44. Northwest Territories
 45. Nova Scotia
 46. Nunavut
 47. Ohio
 48. Oklahoma
 49. Ontario
 50. Oregon
 51. Pennsylvania
 52. Prince Edward Island
 53. Puerto Rico
 54. Quebec
 55. Rhode Island
 56. Saskatchewan
 57. South Carolina
 58. South Dakota
 59. Tennessee
 60. Texas
 61. U.S. Virgin Islands
 62. Utah
 63. Vermont
 64. Virginia
 65. Washington
 66. West Virginia
 67. Wisconsin
 68. Wyoming
 69. Yukon
-
100. Which of the following best describes where you currently live?
 1. An urban centre (i.e. a mid-to-large sized city)
 2. A rural centre (i.e. a farm, acreage, or small town)
 101. How would you describe your political beliefs?
 1. Very conservative
 2. Conservative
 3. Slightly conservative
 4. Middle of the road
 5. Slightly liberal
 6. Liberal
 7. Very liberal
 8. Prefer not to answer

- 102. Do you own a pet? (yes/no)
- 103. If you do own a pet, what kind of pet do you have?
- 104. Do you work with animals? (yes/no)
- 105. If yes, in what capacity?

Version B: Zooville Community

Image Ratings

You will be shown a series of images and asked to answer some questions about each of the pictures. The pictures will contain many different breeds, ages, and poses of various animals. Some of these animals may appeal to you and others may not. All answers are anonymous and confidential, so please be as truthful as possible with your responses. We understand that it may be difficult to judge attraction off of a single still photo, so please imagine, hypothetically, how attracted you could be to that animal.

“Animal” refers to non-human animals

Romantic attraction: A deep desire to have a committed, romantic relationship, not necessarily with a sexual component

Sexual attraction: A desire to have sexual contact

****These questions will be asked individually for each picture****

188. How cute is this animal?

Not At All						Very
1	2	3	4	5	6	7

189. How sexually attractive is this animal?

Not At All						Very
1	2	3	4	5	6	7

190. How romantically attractive is this animal?

Not At All						Very
1	2	3	4	5	6	7

(On picture #1) Choose number 5 from the options below:

- j) 23
- k) 5
- l) 1
- m) 345































































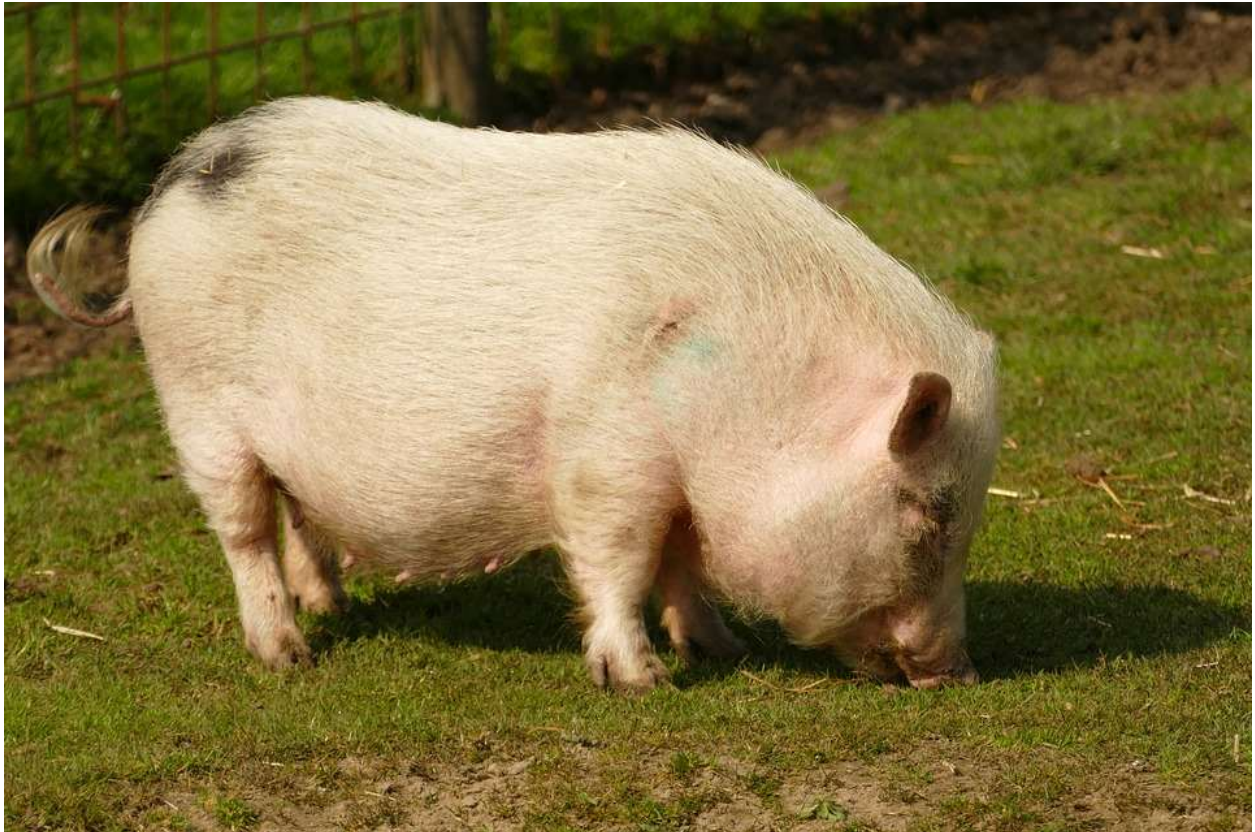
















Added photos

































191. What types of animals do you find cute? Please provide as much detail as possible (e.g., breed of animal, size of animal, sex of animals, any particular characteristics such as fur type or colour, etc.) _____
192. What types of animals do you find sexually attractive? Please provide as much detail as possible (e.g., breed of animal, size of animal, sex of animals, any particular characteristics such as fur type or colour, etc.) _____
193. Would you attempt to have sexual relations with an animal too small for penetrative intercourse? If not, Why Not? What sexual interactions would be attempted if penetrative intercourse is not possible? (Please remember not to provide any identifiable information such as names, dates, or locations in your response to ensure anonymity)_____
194. What types of animals do you find romantically attractive? Please provide as much detail as possible (e.g, breed of animal, size of animal, sex of animals, any particular characteristics such as fur type or colour, etc.)_____
195. Choose 1 from the options below:
 - e) 1
 - f) 34
 - g) 908
 - h) E

Scale Development

“Animal” refers to non-human animals

Romantic attraction: A deep desire to have a committed, romantic relationship, not necessarily with a sexual component

Sexual attraction: A desire to have sexual contact with

Anthropomorphized = to attribute human form or personality to things not human

Strongly Disagree	Slightly Disagree	Disagree	Neutral	Agree	Slightly Agree	Strongly Agree

196. I am excited by the thought of having sexual contact with animals
197. I like my human sexual partners to act like an animal, for instance, through pet play, pony play, ponyism, or pup-play.
198. I like to act like an animal during sexual intercourse or foreplay with humans
199. I keep a pet for romantic companionship
200. I allow the animal to show consent to sexual intercourse
201. I would not harm an animal during sexual intercourse
202. I would have sex with an animal that I love romantically
203. I fantasize about sexual acts with animals
204. I masturbate while thinking about animals
205. I masturbate while animals are present to heighten sexual arousal
206. I masturbate while watching animals copulate
207. I masturbate while watching pornography featuring animal-human sexual contact
208. I watch pornography featuring animal-human sexual contact
209. I have dreams involving sexual acts with animals
210. I fantasize about sexual acts with animals, but I would never have sex with an animal
211. I'm sexually excited by touching the genital and anal regions of animals
212. I rub my genitals on animals for sexual to heighten sexual excitement
213. I get sexually excited by objects that remind me of animals (e.g., furs, animal teeth, reptile skin)
214. I get sexually excited by animals in pain
215. I inflict pain on animals to receive sexual to heighten sexual excitement
216. I would have sex with an animal if no one would ever know
217. I prefer to have sex with humans

- 218. I wouldn't turn down the opportunity to have sex with an animal
- 219. I have no romantic interest in animals but I would still have sex with them
- 220. I prefer to have sex with animals rather than humans
- 221. I love animals romantically
- 222. I get "crushes" on animals
- 223. I would get sexually excited by ordering someone else to have sexual relations with an animal
- 224. I prefer to have sex with dead animals
- 225. I get sexually excited from killing animals
- 226. I would choose sexual activity with animals even when a willing human is available
- 227. I am sexually attracted to humans
- 228. I would have sex with a human if they were available
- 229. Animals can reciprocate my romantic feelings and attractions
- 230. Animals can reciprocate my sexual feelings and attractions
- 231. I am interested in animals with human qualities or the idea of being an anthropomorphized animal
- 232. I get sexually excited by media (e.g., drawings, videos, gifs) of anthropomorphized animals
- 233. I get sexually excited from wearing a fursuit
- 234. I get sexually excited from sexualized contact with others wearing fursuits (yiffing)

Other Sexual Interests

Multiple Paraphilic Interests Scale

Participants are asked to choose one of four possible responses for each item—1 =

"never," 2 = "once or twice," and 3 = "three or more times" over a period of at least 6 months and any history (4 = ever).

- 235. Voyeurism (the practice of gaining sexual pleasure from watching others when they are naked or engaged in sexual activity.)
- 236. Exhibitionism (the urge, fantasy, or act of exposing one's genitals to non-consenting people, particularly strangers)
- 237. Public Masturbation
- 238. Frotteurism (interest in rubbing one's pelvic area against a non-consenting person for sexual pleasure.)
- 239. Fetishism (the eroticization of nonliving objects [e.g., shoes, underwear, stockings] and/or body parts for sexual to heighten sexual excitement)
- 240. Sexual masochism (experiencing recurring and intense sexual arousal in response to enduring moderate or extreme pain, suffering, or humiliation)
- 241. Telephone Scatalogia (Obscene phone calls)

242. Sexual Sadism (experiencing sexual arousal in response to the extreme pain, suffering or humiliation of others)
243. Necrophilia (a sexual attraction or sexual act which involves corpses)

Group Membership

244. Are you part of the Furry community?
245. Do you identify as someone with a sexual interest in animals (zoophilia)?
246. Choose 25 from the options below:
- m) 3
 - n) 2345
 - o) 25
 - p) 1

Demographics

247. How old are you (in years)? _____
248. What is your gender?
- 1. Man
 - 2. Woman
 - 3. Non-Binary
 - 4. Transgender
 - 5. Other (please specify):
249. What is your sexual orientation?
- 1. Heterosexual
 - 2. Homosexual
 - 3. Bisexual
 - 4. Asexual
 - 5. Pansexual
 - 6. Other (please specify):
250. What is your race/ethnicity?
- 1. Caucasian
 - 2. Black
 - 3. East Asian
 - 4. South Asian
 - 5. South East Asian
 - 6. Middle Eastern
 - 7. West Indian
 - 8. Hispanic/Latino
 - 9. Native/Aboriginal/Indigenous
 - 10. Other (please specify):
251. What is your religious affiliation?
- 1. Agnostic
 - 2. Atheist
 - 3. Buddhist
 - 4. Hindu
 - 5. Jewish

6. Muslim
 7. Christian (Catholic, Protestant, or any other Christian denomination)
 8. Other (please specify)
252. What is the highest level of formal education that you have completed/are completing?
1. Some elementary school (Grades 1-7)
 2. Completed elementary school (Grade 8)
 3. Some high school (grades 9-11)
 4. Completed high school (Grade 12 or 13)
 5. Some community college/vocational/trade school/CEGEP
 6. Diploma or certificate from community college/vocational/trade school/CEGEP
 7. Some university
 8. Completed university (Bachelor's degree)
 9. Some graduate/professional school (Master's degree, PhD, LLB, M.D, M.Ed, etc)
 10. Completed graduate school (Master's degree, PhD, LLB, M.D, M.Ed, etc)
 11. No schooling
253. What is your annual household income?
1. Less than \$19,999
 2. \$20,000 to \$34,999
 3. \$35,000 to \$49,000
 4. \$50,000 to \$74,999
 5. \$75,000 to \$99,999
 6. Over \$100,000
 7. Prefer not to answer
254. What country do you currently live in?
1. Canada
 2. United States of America
 3. Other (please specify):
255. Which province/territory/state do you currently live in?
1. Alabama
 2. Alaska
 3. Alberta
 4. American Samoa
 5. Arizona
 6. Arkansas
 7. British Columbia
 8. California
 9. Colorado
 10. Connecticut
 11. Delaware
 12. District of Columbia
 13. Florida
 14. Georgia
 15. Guam
 16. Hawaii
 17. Idaho
 18. Illinois

19. Indiana
20. Iowa
21. Kansas
22. Kentucky
23. Louisiana
24. Maine
25. Manitoba
26. Maryland
27. Massachusetts
28. Michigan
29. Minnesota
30. Mississippi
31. Missouri
32. Montana
33. Nebraska
34. Nevada
35. New Brunswick
36. New Hampshire
37. New Jersey
38. New Mexico
39. New York
40. Newfoundland and Labrador
41. North Carolina
42. North Dakota
43. Northern Mariana Islands
44. Northwest Territories
45. Nova Scotia
46. Nunavut
47. Ohio
48. Oklahoma
49. Ontario
50. Oregon
51. Pennsylvania
52. Prince Edward Island
53. Puerto Rico
54. Quebec
55. Rhode Island
56. Saskatchewan
57. South Carolina
58. South Dakota
59. Tennessee
60. Texas
61. U.S. Virgin Islands
62. Utah
63. Vermont
64. Virginia

65. Washington
 66. West Virginia
 67. Wisconsin
 68. Wyoming
 69. Yukon
-
256. Which of the following best describes where you currently live?
 1. An urban centre (i.e. a mid-to-large sized city)
 2. A rural centre (i.e. a farm, acreage, or small town)
 257. How would you describe your political beliefs?
 1. Very conservative
 2. Conservative
 3. Slightly conservative
 4. Middle of the road
 5. Slightly liberal
 6. Liberal
 7. Very liberal
 8. Prefer not to answer
 258. Do you own a pet? (yes/no)
 259. If you do own a pet, what kind of pet do you have?
 260. Do you work with animals? (yes/no)
If yes, in what capacity?

Appendix H: Consent Forms

A A Researchers: Alexandra Zidenberg, MA
Department of Psychology, University of Saskatchewan
Email: alexandra.zidenberg@usask.ca

Faculty Supervisor: Dr. Mark Olver
Department of Psychology, University of Saskatchewan
Phone: (306) 966-4743
Email: mark.olver@usask.ca

Animal Care Professionals' Perceptions of Animal Sexual Abuse: You are invited to participate in a research study entitled "Animal Care Professionals' Perceptions of Animal Sexual Abuse." This study BEH 1669 has been approved by the University of Saskatchewan Behavioural Research Ethics Board on March 25, 2020. Please read this form carefully and feel free to contact the researchers above if you have any questions prior to, during, or after completing the study. This project has been approved on ethical grounds by the University of Saskatchewan Research Ethics Board. Any questions regarding your rights as a participant may be addressed to the committee through the Research Ethics Office: ethics.office@usask.ca; (306) 966-2975. Out of town participants may call toll free (888) 966-2975. Participants in the US who wish to contact the REB may call collect (1-306-966-2975).

Purpose and Procedure: Currently, there is very little known about animal care professionals' experiences dealing with and responding to animal sexual abuse in practice; especially in a Canadian context. Within veterinary medicine there seems to be a taboo regarding the discussion of animal sexual abuse potentially leading to a lack of information for animal care professionals. The purpose of this study is to see what veterinarians and other animal care professionals know about animal sexual abuse.

To participate, you must be an animal care professional (e.g., Veterinarian, Veterinary Technician, Veterinary Nurse) previously trained or currently working/training in Canada or the United States or an upper year student in an animal care professional program. If you decide to take part, you will be asked to fill out some questionnaires assessing your knowledge and experiences around animal abuse (including sexual abuse), your perceptions of individuals who abuse animals, and to answer some basic questions about yourself and your professional background. There will be three attention checks included in the survey. Failure to accurately answer these attention checks may result in your data being discarded or discontinuation in the survey. Completion of this study should take no more than 15-30 minutes.

Potential Benefits: While there will be no direct benefit to you as a participant, you will have the opportunity to better understand the research process and to contribute knowledge about animal care professionals' knowledge and experiences of sexual abuse against animals. Having a better understanding of what animal care professionals know about animal sexual abuse could

lead to more tailored training for professionals, more confidence and competence in dealing with animal sexual abuse, and an increased level of patient care in the future.

In appreciation for your time, at the conclusion of the survey, the first 200 participants will receive a \$5CAD giftcard. The gift cards will be awarded on a first-come-first-serve basis. Contact information for the giftcards will be stored in a separate file and will not be attached to your responses.

Potential Risks: During participation in this study, there is the potential to experience some discomfort due to the sensitive nature of the questions. However, if this occurs, please remember that you have the right to skip any questions you wish or to withdraw your consent at any time without penalty. If you wish, you may contact the research team at the contact information above to discuss the study. If you require further support, please consider contacting service your local crisis intervention service (a list of crisis services for each province/territory and country will be available upon completion or withdrawal from the study and is available upon request from the research team if you require).

Storage of Data: The research data will be encrypted and stored on the secure servers of SurveyMonkey, whose premises have 24/7 security. Once data collection is complete, data will be stored on password protected computers accessible to only the above researchers. No identifying information, such as your name or student ID, will appear in the database. All the data will be aggregated to further protect the confidentiality of your responses. Anonymous data will be held by the research supervisor, Dr. Olver, for a minimum of five years post-publication. However, it may be stored up to 15 years after collection. Once it has been collected from the SurveyMonkey, it will be permanently deleted from their servers upon request from the graduate student researchers or the research supervisor. The information will then reside on a password protected computer in a secure setting for the duration of the storage term described above. When the data will be deleted, it will be done so through a file shredding software, erasing the possibility that the data can be recovered (i.e., it will be permanently deleted).

Anonymity and Confidentiality: Your participation is anonymous and confidential. While the data from this research project may be published and presented at conferences, it will be reported in aggregate form. Aggregated / grouped data may be shared with other researchers as required by the ethics and publication guidelines of psychology. If this is the case, none of your identifying information will be included. This ensures that the identification of individuals will not be possible. To ensure the anonymity of your responses, please do not include any identifying information in your responses, such as your name or email in the questionnaire fields. Also, note that other identifying information, such as IP addresses, are automatically stored in a separate data file from survey responses and thus will not be associated with any your responses. Because the survey host's (SurveyMonkey) data is stored on secure servers in a building with 24/7 security in Canada, it cannot be extracted under legislation such as the Patriot Act in the United States, which requires research data to be turned over to the government.

Right to Withdraw: Your participation in this study is voluntary and you are not required to answer any questions that you are uncomfortable with. If you do not wish to continue with the

study, you are free to withdraw your consent at any time, for any reason, without penalty. There will also be a text box at the completion of the survey. If you feel comfortable, feel free to share your concerns here, as this will help the researchers in ensuring that the study minimized risk to the greatest extent possible. You can also indicate in this box whether you would like to withdraw your data, as once the survey has been completed responses will no longer be able to be redacted due to the anonymous nature of the study.

Questions: If any questions or concerns arise prior to, during, or after completing the study, feel free to express these by contacting the research team at the contact information above. Further, if you have any questions about your rights as a research participant, please contact the ethics office at (306) 966-2975. Out of town participants may call toll free (888) 966-2084. Participants in the US who wish to contact the REB may call collect (1-306-966-2975).

Follow-Up or Debriefing: After completion or withdrawal from the survey, you will be directed to a debriefing form providing more information on the study's background and purpose. If you wish to receive a summary of the research results, please submit your request to the research team at the contact information above.

Consent to Participate: By completing and submitting the questionnaire, **YOUR FREE AND INFORMED CONSENT IS IMPLIED** and indicates that you understand the above conditions of participation in this study. This will constitute permission for the researcher to use the data gathered in the manner described above. If you would like a copy of the consent form, please print a copy for your records before proceeding to the questionnaire. You may also contact the researchers for a copy of the consent form.

A A Researchers: Alexandra Zidenberg, MA
Department of Psychology, University of Saskatchewan
Email: alexandra.zidenberg@usask.ca

Faculty Supervisor: Dr. Mark Olver
Department of Psychology, University of Saskatchewan
Phone: (306) 966-4743
Email: mark.olver@usask.ca

Measuring Interest in Animals: You are invited to participate in a research study entitled “Measuring Interest in Animals.” This study BEH 1669 has been approved by the University of Saskatchewan Behavioural Research Ethics Board on March 25, 2020. Please read this form carefully and feel free to contact the researchers above if you have any questions prior to, during, or after completing the study. This project has been approved on ethical grounds by the University of Saskatchewan Research Ethics Board. Any questions regarding your rights as a participant may be addressed to the committee through the Research Ethics Office: ethics.office@usask.ca; (306) 966-2975. Out of town participants may call toll free (888) 966-2975. Participants in the US who wish to contact the REB may call collect (1-306-966-2975).

Purpose and Procedure: The purpose of this study is to learn more about people who are and are not sexually interested in animals. To participate, you must a minimum of 18 years of age and currently living in Canada or the United States. If you decide to take part, you will be asked to look at images of animals and provide ratings, you will be asked questions about your sexual practices, and some (non-identifiable) demographic information. There will be three attention checks included in the survey. Failure to accurately answer these attention checks may result in your data being discarded or discontinuation in the survey. The entire study will take approximately 15 to 20 minutes.

Potential Benefits: While there will be no direct benefit to you as a participant, you will have the opportunity to better understand the research process and to contribute knowledge about individuals who do and do not have a sexual interest in animals. Having a better understanding of these individuals could lead to more tailored training for professionals, more confidence and competence in dealing with zoophilic individuals, and an increased level of patient care in the future. If you are eligible, you may receive a bonus mark in certain classes in exchange for your participation. Your professor and class syllabus will have discussed this if it is an option. If you are participating through Sona systems, what is your Sona ID? _____

In appreciation for your time (if you have not received a bonus mark), at the conclusion of the survey, the first 200 participants will receive a \$5CAD giftcard. The gift cards will be awarded on a first-come-first-serve basis. Contact information for the giftcards will be stored in a separate file and will not be attached to your responses.

Potential Risks: During participation in this study, there is the potential to experience some discomfort due to the sensitive nature of the questions. However, if this occurs, please remember

that you have the right to skip any questions you wish or to withdraw your consent at any time without penalty. If you wish, you may contact the research team at the contact information above to discuss the study. If you require further support, please consider contacting service your local crisis intervention service (a list of crisis services for each province/territory and country will be available upon completion or withdrawal from the study and is available upon request from the research team if you require).

Storage of Data: The research data will be encrypted and stored on the secure servers of SurveyMonkey, whose premises have 24/7 security. Once data collection is complete, data will be stored on password protected computers accessible to only the above researchers. No identifying information, such as your name or student ID, will appear in the database. All the data will be aggregated to further protect the confidentiality of your responses. Anonymous data will be held by the research supervisor, Dr. Olver, for a minimum of five years post-publication. However, it may be stored up to 15 years after collection. Once it has been collected from the SurveyMonkey, it will be permanently deleted from their servers upon request from the graduate student researchers or the research supervisor. The information will then reside on a password protected computer in a secure setting for the duration of the storage term described above. When the data will be deleted, it will be done so through a file shredding software, erasing the possibility that the data can be recovered (i.e., it will be permanently deleted).

Anonymity and Confidentiality: Your participation is anonymous and confidential. While the data from this research project may be published and presented at conferences, it will be reported in aggregate form. Aggregated / grouped data may be shared with other researchers as required by the ethics and publication guidelines of psychology. If this is the case, none of your identifying information will be included. This ensures that the identification of individuals will not be possible. To ensure the anonymity of your responses, please do not include any identifying information in your responses, such as your name or email in the questionnaire fields. Also, note that other identifying information, such as IP addresses, are automatically stored in a separate data file from survey responses and thus will not be associated with any your responses. Because the survey host's (SurveyMonkey) data is stored on secure servers in a building with 24/7 security in Canada, it cannot be extracted under legislation such as the Patriot Act in the United States, which requires research data to be turned over to the government.

Should you decide to contact the researchers and reveal your identity, confidentiality will be provided to the fullest extent possible by law, professional practice and ethical codes of conduct. No information about your identity will be disclosed without your permission, unless required by law. Your privacy shall be respected. There are some situations, however, in which confidentiality may need to be breached under such circumstances, specifically, should you contact the researchers and it comes to our attention that: a) you have been or are currently sexually abusing an animal(s), b) you disclose to us an intention to harm yourself or someone else, or c) if you report committing a specific previous crime with a victim that can be identified. We also may have a duty to report any abuse to children under the age of 16 to the Children's Aid Society (i.e. if you provide unsolicited information about an identifiable victim). Please note that we have designed the questionnaires in a way that *should not* result in the situations

described above, so please feel free to answer the questions honestly. We do ask, however, that you not provide any exact detail regarding past offences so your confidentiality can be maintained.

Right to Withdraw: Your participation in this study is voluntary and you are not required to answer any questions that you are uncomfortable with. If you do not wish to continue with the study, you are free to withdraw your consent at any time, for any reason, without penalty. There will also be a text box at the completion of the survey. If you feel comfortable, feel free to share your concerns here, as this will help the researchers in ensuring that the study minimized risk to the greatest extent possible. You can also indicate in this box whether you would like to withdraw your data, as once the survey has been completed responses will no longer be able to be redacted due to the anonymous nature of the study.

Questions: If any questions or concerns arise prior to, during, or after completing the study, feel free to express these by contacting the research team at the contact information above. Further, if you have any questions about your rights as a research participant, please contact the ethics office at (306) 966-2975. Out of town participants may call toll free (888) 966-2084. Participants in the US who wish to contact the REB may call collect (1-306-966-2975).

Follow-Up or Debriefing: After completion or withdrawal from the survey, you will be directed to a debriefing form providing more information on the study's background and purpose. If you wish to receive a summary of the research results, please submit your request to the research team at the contact information above.

Consent to Participate: By completing and submitting the questionnaire, **YOUR FREE AND INFORMED CONSENT IS IMPLIED** and indicates that you understand the above conditions of participation in this study. This will constitute permission for the researcher to use the data gathered in the manner described above. If you would like a copy of the consent form, please print a copy for your records before proceeding to the questionnaire. You may also contact the researchers for a copy of the consent form.

Appendix I: Recruitment Materials

Facebook/Reddit/Email/Forum Postings:

You are invited to participate in a research study called “Animal Care Professionals’ Perceptions of Animal Sexual Abuse.” As the title suggests, we are interested in better understanding what veterinarians and other animal care professionals know about animal sexual abuse. Given the taboo associated with animal sexual abuse in the animal care community, it is important to gain a better understanding of what animal care professionals know about abuse and how they respond to it. The study will take approximately 20-30 minutes and is completely anonymous.

To qualify, you must be an animal care professional (e.g., Veterinarian, Veterinary Technician, Veterinary Nurse) or an upper year student in an animal care profession previously trained or currently working in Canada or the United States.

If you would like more information about the study or require assistance, please contact the Alexandra Zidenberg (alexandra.zidenberg@usask.ca) or the faculty supervisor, Dr. Mark Olver, at mark.olver@usask.ca.

This research BEH 1669 received approval from the Behavioural Research Ethics Board on March 25, 2020.

Click the link below to begin the study:

<https://www.surveymonkey.ca/r/VetStudyASA>

Twitter:

Please RT: We are looking for animal care professionals to participate in a study looking at animal sexual abuse. If you are a Canadian/US vet, vet tech, vet nurse, or other animal care professional or an upper year student, please consider participating! [short URL] #veterinary #research #survey

Poster:

Department of Psychology, University of Saskatchewan



PARTICIPANTS NEEDED FOR RESEARCH FOCUSING ON ANIMAL WELFARE



We are looking for Canadian and American animal care professionals (e.g., Veterinarians, Veterinary Technicians, Veterinary Nurses, etc.) or upper year students to take part in a study on experiences with and perceptions of animal sexual abuse.

As a participant in this study, you would be asked to you will be asked to fill out some questionnaires assessing your knowledge and experiences around animal abuse (including sexual abuse), your perceptions of individuals who abuse animals, and to answer some basic questions about yourself and your professional background.

Completion of this survey should take no more than 15-30 minutes.

In appreciation for your time, the first 200 participants will receive a **gift card**.

For more information about this study, or to volunteer for this study,
please contact:

Alexandra Zidenberg, Department of Psychology
alexandra.zidenberg@usask.ca

**This study has been reviewed by, and received approval
through, the Research Ethics Office, University of Saskatchewan.**



Facebook/Reddit/Email/Forum Postings:

You are invited to participate in a research study called “Measuring Interest in Animals.” As the title suggests, we are interested in better understanding individuals with and without a sexual interest in animals. Given the taboo associated with individuals with a sexual interest in animals, it is important to gain a better understanding of these individuals and how to best identify and support them. The study will take approximately 15-30 minutes and is completely anonymous.

To qualify, you must be 18 years of age or older and currently living in Canada or the United States.

If you would like more information about the study or require assistance, please contact the Alexandra Zidenberg (alexandra.zidenberg@usask.ca) or the faculty supervisor, Dr. Mark Olver, at mark.olver@usask.ca.

This research BEH 1669 received approval from the Behavioural Research Ethics Board on March 25, 2020.

Click the link below to begin the study:

[link]

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