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ADULTHOOD ANIMAL ABUSE AMONG MEN ARRESTED FOR DOMESTIC VIOLENCE

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Abstract

Learning more about intimate partner violence (IPV) perpetrators could aid the development of more effective treatments. The prevalence of adulthood animal abuse (AAA) perpetration and its association with IPV perpetration, antisociality, and alcohol use in 307 men arrested for domestic violence was examined. 41% (n = 125) of the men committed at least one act of animal abuse since the age of 18, in contrast to the 3.0% prevalence rate reported by men in the general population. Controlling for antisociality and alcohol use, AAA showed a trend towards a significant association with physical and severe psychological IPV perpetration.

Keywords

Intimate partner violence; Animal abuse; Male perpetrator

The prevalence of male-perpetrated intimate partner violence (IPV) in the United States remains alarmingly high. Studies show that up to 55% of women are victims of IPV in their lifetime (Black et al., 2011; Coker, Smith, McKeown, & King, 2000; Thompson et al., 2006; Tjaden & Thoennes, 2000). IPV victimization has been associated with numerous devastating physical and mental health consequences (Black et al., 2011; Coker et al., 2002; Follingstad, 2009; Temple, Weston, & Marshall, 2005; Zlotnick, Johnson, & Kohn, 2006). A substantial number of women are victims of the most extreme of these consequences: intimate partner homicide. In fact, in 2005 alone, intimate homicide accounted for the deaths of 1,181 women in the United States (U. S. Department of Justice, 2007).

Despite the striking prevalence and devastating costs of IPV, intervention programs designed to prevent recidivism of male-perpetrated violence have demonstrated limited effectiveness (Babcock, Green, & Robie, 2004; Feder & Wilson, 2005). At the same time, there is increasing evidence that male-perpetrated IPV is associated with an array of factors considered to be antisocial in nature, including aggression against animals, problematic alcohol use, and antisocial personality traits. Obtaining more information about factors relevant to the perpetration of IPV by men could lead to a better understanding of these individuals in order to aid in the development of more effective treatments.

A great deal of research suggests an association between aggression perpetrated against non-human animals and against humans. Perhaps the most well-known illustrations of this association have employed retrospective investigations of the perpetration of animal abuse during adolescence or childhood. Animal abuse or cruelty is defined as “socially unacceptable behavior that intentionally causes unnecessary pain, suffering, or distress to and/or death of an animal” (Ascione 1993, p.228). For instance, studies using samples of criminal offenders have found significantly higher levels of childhood animal cruelty, particularly physical in nature, reported by those individuals who commit aggressive or violent crimes (e.g., murder, sex offenses) than by those who commit non-aggressive crimes or crimes deemed less aggressive (e.g., property crimes, drug-related crimes) (Kellert & Felthous, 1985; Merz-Perez, Heide, & Silverman, 2001). Further, perpetrators’ methods of aggression used against animals in childhood often mirror those used against humans in adulthood (Wright & Hensley, 2003). The relationship between youth animal abuse and adult interpersonal violence continues to receive empirical support. This close relationship is reflected in the inclusion of childhood animal abuse as one criterion for Antisocial Personality Disorder (ASPD), an adulthood disorder commonly characterized by interpersonal aggression (Arluke, Levin, Luke, & Ascione, 1999). Also, the acceptability of violence and the imitation of specific acts of aggression transmitted via social learning are thought to play a similar and significant role in the perpetration of each type of aggression, providing a further link between them (Agnew, 1998; Bell & Naugle, 2008).

More recently, research has also begun to examine the relation between animal abuse committed as an adult and aggression against humans, including intimate partners. In a study

of over 3,000 women residing in 11 metropolitan cities in the U.S. who survived an attempted intimate homicide and proxies for women who were murdered by their intimate partners, Walton-Moss and colleagues (2005) found that women whose partners had reportedly abused a pet were 7.6 times more likely to be victims of IPV compared to non-abused women. Studies also show that up to 75% of female victims of IPV who own pets report that their pets were threatened or harmed by their intimate partners (Flynn, 2011). In addition, in a study of 101 female residents of domestic violence shelters, Ascione and colleagues (2007) found residents to be 11 times more likely to report that their partners had hurt or killed the family pet compared to a control group of women who had not experienced IPV. The residents whose partners reportedly abused their pet also experienced more frequent and more severe forms of IPV. Research also shows male perpetrators of partner aggression to be at risk of threatening to harm pets in the midst of altercations with their female partners (Carlisle-Frank, Frank, & Nielsen, 2004). Such behavior has been considered a form of coercion or control (Johnson, 2006; Loring & Bolden-Hines, 2004) and is thought to *intensify* existing emotional abuse (Faver & Strand, 2003). For instance, in one study, female victims of IPV reported that their partners used threats against their pets to coerce them to commit crimes (Loring & Bolden-Hines, 2004).

The seemingly common co-occurrence of animal abuse in homes plagued by domestic violence has led researchers to argue that animal abuse/cruelty could be a “red flag” for family violence and, thus, they have encouraged its continued study to better understand perpetrators in the interest of increasing detection, prevention, and intervention efforts (Ascione, Weber, & Wood, 1997; DeGue & DiLillo, 2009; Flynn, 2000; Simmons & Lehmann, 2007). Furthermore, the fact that up to 48% of women risk further victimization by delaying seeking shelter, some for more than 8 weeks, and/or by returning to an abusive partner out of concern that their partner may harm their pets (Ascione et al., 2007; Carlisle-Frank et al., 2004; Volant, Johnson, Gullone, & Coleman, 2008) underscores the importance of better understanding the relationship between adulthood animal abuse and IPV.

Previous studies of animal abuse and IPV, such as those aforementioned, are limited by the fact that they do not control for other antisocial features that show a strong link to IPV perpetration (e.g., problematic alcohol use). Because animal abuse is largely an antisocial act, it may be important to control for other antisocial features in order to elucidate whether adulthood animal abuse is uniquely associated with IPV perpetration. For example, it has been repeatedly shown that the perpetration of psychological and physical IPV is more common in men meeting criteria for ASPD than those who do not. In a study comprised of men in treatment for perpetrating violence and men in the community, Hanson, Cadsky, Harris, and Lalonde (1997) found that men who reported perpetrating aggression against their partners were more likely to display antisocial features, including engaging in more violence in childhood, endorsing more symptoms of Conduct Disorder, meeting criteria for ASPD, endorsing more indicators of hostility, and being convicted of violent crimes than men who denied aggressing against their partner. ASPD has also been found to be one of the strongest predictors of self-reported physical violence perpetration. Edwards and colleagues (2003) found that when they divided their sample of inmates into no-, low-, and high-violence men, only the high-violence group obtained elevated ASPD scores. In addition,

empirical evidence has consistently shown that problematic alcohol use increases the risk of IPV perpetration (e.g., Foran & O'Leary, 2008; Leonard & Roberts, 1998; Stith, Smith, Penn, Ward, & Tritt, 2004; Stuart, Moore, Kahler, & Ramsey, 2003). In a meta-analysis of studies on the link between alcohol use/abuse and partner violence, Foran and O'Leary (2008) found moderate effect sizes for the association between alcohol use/abuse and male-to-female partner violence, with some of the largest associations found when severe alcohol problems were present. Likewise, in a sample of men arrested for domestic violence, Stuart and colleagues (2003) found that half the sample met criteria for an alcohol-related diagnosis and that those men who were considered hazardous drinkers scored significantly higher on measures of violence, compared to non-hazardous drinking men. Furthermore, alcohol use and ASPD co-occur at high rates (Grant et al., 2004; Regier et al., 1990), making them particularly important factors to consider when examining whether animal abuse is uniquely linked to IPV perpetration.

The current study seeks to address these gaps in the literature by assessing self-reported adulthood animal abuse, antisocial personality traits, and alcohol use in a sample of men arrested for domestic violence. The aims of the present study are: a) to examine the prevalence and frequency of adulthood animal abuse perpetration in men court-referred to Batterer Intervention Programs (BIPs) and b) to simultaneously assess the association between adulthood animal abuse, antisocial personality traits, alcohol use, and IPV perpetration. Such an examination will further the understanding of IPV perpetrators and inform the assessment of these men for the benefit of treatment development. Based upon existing research (e.g., Carlisle-Frank et al., 2004), we hypothesized that adulthood animal abuse would be endorsed by the men in our sample, and that it would be associated with antisocial traits, alcohol use, and IPV perpetration. We further hypothesized that the association between adulthood animal abuse and IPV perpetration would be significant above and beyond the association between IPV perpetration, antisocial personality traits, and alcohol use.

METHOD

Participants

The sample consisted of 307 men arrested for domestic violence and court-referred to Rhode Island BIPs (see Stuart et al., 2006a; 2008). Participants reported a mean age of 33.1 years (*SD* = 10.2), education of 12.1 years (*SD* = 2.0), and annual income of $34,436 (*SD* =23,272). The ethnic composition of the sample was 72.3% non-Hispanic Caucasian, 12.1% African-American, 8.1% Hispanic, 2.0% American Indian/Alaskan Native, 1.3% Asian or Pacific Islander, and 3.9% other. At the time of the study, 27.7% of the men were married, 29.6% were cohabiting and not currently married, 20.2% were dating, 11.7% were single, 5.9% were separated, 4.2% were divorced, and 0.3% were widowed. The average length of the men's current relationship was 5.6 years (*SD* = 5.3), length of time living with their current intimate partner was 5.0 years (*SD* = 5.4), and number of children was 1.9 (*SD* = 2.0).

Procedure

Participation was voluntary, no compensation was provided for completing the questionnaires and none of the information gathered was shared with the intervention facilitators or anyone within the criminal justice system. After obtaining informed consent, participants were provided with a packet of questionnaires to be filled out during their regularly scheduled batterer intervention sessions. A more detailed description of these procedures can be obtained from Stuart and colleagues (2006a, 2008).

The mean number of batterer intervention sessions attended by participants at the time of this study was 9.75 (*SD* = 7.05). Total number of intervention sessions attended was not significantly related to any of the variables of interest in the current study, suggesting that number of sessions attended did not affect study results.

Measures

Demographics questionnaire—Information was gathered about the participants' age, education, income, ethnicity, marital status, duration of current relationship, duration of cohabitation with current partner, and number of children.

Intimate partner violence—IPV perpetration in the past year was assessed with the Revised Conflict Tactics Scale (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). The psychological aggression and physical assault subscales were examined for the current study. Within these subscales, items are classified by severity level (mild or severe), with severity defined by the risk of injury associated with each behavior. Sample items measuring severe psychological aggression include, "Threatened to hit or throw something at my partner" and "Destroyed something belonging to my partner", and those measuring severe physical assault include, "Slammed my partner against a wall" and "Punched or hit my partner with something that could hurt". Scores were obtained by summing the frequency of each of the behaviors in the year before entrance into the BIP. The score for each item ranged from 0 to 25 with higher scores indicating more frequent use of that particular act of aggression against their intimate partner (Straus, Hamby, & Warren, 2003). The CTS2 has demonstrated adequate reliability and is the most widely used self-report measure of IPV (Straus et al., 1996). In the present study, the internal consistency estimates for psychological aggression and physical assault were .76 and .78, respectively.

Animal abuse—Animal abuse perpetrated since the age of 18 was assessed using the Aggression Toward Animals Scale (ATAS; Gupta & Beach, 2001). The ATAS was adapted from the CTS2 (Straus et al., 1996) to reflect acts of aggression committed against non-human animals. Like the CTS2, participants rated (*0=never, 1= 1 time, 2= 2 times, 3= 3–5 times, 4= 6–10 times, 5= 11–20 times, 6= more than 20 times*) how frequently they neglected (1 item), threatened (1 item), and/or physically assaulted (11 items) an animal, with each of the 13 items asking about one type of abuse. Procedures for scoring the ATAS were also adapted from the CTS2; each item was recoded using the midpoint for each response. Thus, scores ranged from 0 to 25 for each item with higher scores indicating more frequent aggression. The ATAS Total Score was calculated by summing the frequency of all items. For exploratory purposes, to further our understanding of different forms of animal

abuse, we subdivided the ATAS into three different domains (i.e., Neglect, Threat, and Physical Assault). The items corresponding to each of the three different types of animal abuse were summed separately to provide the three ATAS domain scores. The psychometric properties of this measure have yet to be published. However, in the present study, the internal consistency for the ATAS Total Score was .73.

Antisocial personality traits—The Antisocial Personality Disorder (ASPD) subscale of the Personality Diagnostic Questionnaire-4 (PDQ-4; Hyler et al., 1988) was used to measure antisocial personality traits, which includes animal abuse committed before the age of 15. The PDQ-4 is intended to be a screening instrument for a possible diagnosis of ASPD. Sample items include (True or False): "I've been in trouble with the law several times (or would have been if I was caught)" and "Lying comes easily to me and I often do it." The PDQ-4 has demonstrated high internal consistency (Hyler et al., 1989) and good test-retest reliability (Trull, 1993). For the current study, the internal consistency of the PDQ-4 ASPD subscale was .89.

Alcohol use—The Alcohol Use Disorders Identification Test (AUDIT; Saunders, Aasland, Babor, De La Fuenta, & Grant, 1993) was used to assess the quantity and frequency of participants' drinking, drinking intensity, symptoms of dependence and tolerance, and alcohol-related negative consequences in the past year. This is a 10-item self-report questionnaire with scores ranging from 0 to 40. The AUDIT has demonstrated adequate reliability and validity (Saunders, Aasland, Amunsden, & Grant, 1993). The internal consistency of the AUDIT for the current study was .86.

Data Analysis

The prevalence and frequency of adulthood animal abuse perpetration are presented in Table 1. Bivariate correlations, means, and standard deviations for all variables are presented in Table 2. Means and standard deviations were derived from raw scores of all the measures. While raw scores of the PDQ-4 and AUDIT were utilized in the remaining analyses, natural log transformations of the ATAS and CTS2 were used to correct for positively skewed distributions. Hierarchical linear regressions were used to examine the unique variance in IPV perpetration attributable to adulthood animal abuse. Separate models were conducted for each type of IPV.

RESULTS

The first aim of this study was to examine the prevalence and frequency of adulthood animal abuse perpetration among men court-referred to BIPs. Results (presented in Table 1) indicate that 41% (n=125/307) of the sample reported committing at least one act of animal abuse since the age of 18. On average, these 125 men perpetrated 9.52 acts of animal abuse (SD=13.02). Physical abuse was endorsed with the highest prevalence (n=100, 80.0%) and frequency (M=5.65, SD=9.42), followed by threats (n=89, 71.2%; M=3.47, SD=5.94), and neglect (n=15, 12.0%; M=0.40, SD=1.68).

Psychological and physical IPV (overall and severe), antisocial traits, alcohol use, total adulthood animal abuse, and physical animal abuse were all positively and significantly correlated with each other (see Table 2).

The second aim of this study was to assess the simultaneous association between adulthood animal abuse, antisocial traits, alcohol use, and IPV. These results are presented in Tables 3 and 4. In Table 3, in the first model, antisocial personality traits and alcohol use accounted for 14% of the variance in the male perpetrators' reports of severe psychological aggression toward their partner. In the second model, a trend towards significance ($p = .057$) was observed, such that the addition of adulthood animal abuse increased the proportion of variance accounted for in severe psychological aggression perpetration to 15%.

As presented in Table 4, in the first model, antisocial personality traits and alcohol use accounted for 14% of the variance in the male perpetrators' reports of physical assault toward their partner. In the second model, a trend towards significance ($p = .052$) was observed, such that the addition of adulthood animal abuse increased the proportion of variance accounted for in physical assault perpetration to 15%.

Finally, contrary to our hypothesis, adulthood animal abuse was not significantly associated with overall psychological aggression or severe physical aggression above and beyond antisocial personality traits and alcohol use (Tables 3 and 4).[1]

DISCUSSION

The goals of the current study were: a) to assess the prevalence and frequency of adulthood animal abuse perpetration in men court-referred to BIPs and b) to simultaneously examine the association between adulthood animal abuse, antisocial personality traits, alcohol use, and IPV perpetration. To our knowledge, this is the first study to present such aims and, as such, attempts to improve upon previous studies of IPV perpetration (e.g., Ascione et al., 2007; Edwards et al., 2003; Hanson, Cadsky, Harris, & Lalonde, 1997; Simmons & Lehmann, 2007; Stith, Smith, Penn, Ward, & Tritt, 2004; Stuart et al., 2006a).

Consistent with our first hypothesis, 41% ($n = 125$) of this sample of men reported committing at least one act of animal abuse since the age of 18. This rate is significantly greater than the 3.0% prevalence rate of animal cruelty reported by a nationally representative sample of adult men in a study that drew from the 2001–2002 National Epidemiologic Survey on Alcohol and Related Conditions (Vaughn et al., 2009)[2]. In that study, Vaughn and colleagues (2009) assessed animal cruelty through the use of one broad question ("In your entire life, did you ever hurt or be cruel to a animal or pet on purpose?",

[1]The PDQ-4 ASPD subscale includes an item that assesses for animal abuse perpetrated in childhood. A second PDQ-4 ASPD subscale total score was calculated excluding the childhood animal abuse item. Regression analyses were repeated using this alternative total and results did not change with this item removed. Therefore, the presence of the childhood animal abuse item on the PDQ-4 ASPD subscale does not impact the findings for the associations between adulthood animal abuse and IPV after controlling for antisociality and alcohol use. This provides further support for the unique nature of the association between adulthood animal abuse and IPV.

[2]A chi-square analysis comparing the prevalence of adulthood animal abuse in the current study to the prevalence of animal abuse in the study by Vaughn and colleagues (2009) was performed and showed that animal abuse was endorsed at a significantly higher rate ($\chi^2(1, 19726) = 1189.53$, $p < .001$) in the current study.

p. 1214), whereas in the current study, animal abuse was assessed using thirteen separate questions about specific behaviors spanning three categories. The more comprehensive nature of the questionnaire used in this study, in addition to the fact that this study assessed a sample of aggressive men, could explain the higher prevalence rate found in the present study. Further, we also found physical animal abuse to be the most prevalent and frequent form of adulthood animal abuse, compared to neglect and threat. As such, future research on animal abuse, IPV, and the relationship between the two may be enhanced by similarly assessing whether acts of animal abuse were committed in adulthood and what types of acts were committed.

The prevalence rate is also striking given that animal abuse perpetration is predominantly recognized as a childhood phenomenon occurring within the context of Conduct Disorder and given that the majority of the research on the relationship between animal abuse and IPV perpetration focuses on animal abuse committed in childhood (e.g., Henderson, Hensley, & Tallichet, 2011; Merz-Perez et al., 2001; Tallichet & Hensley, 2004). The results of this study suggest that it may also be helpful to know if a perpetrator of IPV has committed adulthood animal abuse, whether or not they have a childhood history of such behavior; although, this requires further investigation given the nonsignificant trends observed in this study. Further, by concentrating on animal abuse committed in adulthood, these results lend support for the idea that human and animal abuse may be “linked throughout the lifespan” (Volant et al., 2008), as well as support the deviance generalization hypothesis which states that “individuals who commit one form of deviance are likely to commit other forms as well, and in no particular time order” (Arluke et al., 1999). Future research should examine the prevalence of adulthood animal abuse in additional samples of IPV perpetrators.

Adulthood animal abuse was also positively associated with IPV perpetration. Research on individuals’ motivations for IPV perpetration (Hamberger, Lohr, Bonge, & Tolin, 1997; Stuart, Moore, Hellmuth, Ramsey, & Kahler, 2006b) and animal abuse committed as children and adolescents (Kellert & Felthous, 1985; Merz-Perez & Heide, 2004; Tallichet, Hensley, & Singer, 2005) reveal areas of substantial overlap for some of the most popular motivations, including retaliation, control, and the expression of anger. It may be that an individual’s propensity for maladaptive coping strategies in one setting (e.g., the use of aggression towards animals) is consistent across other settings (e.g., the use of aggression towards intimate partners). In addition, theories of IPV (see Bell & Naugle, 2008 for review) and animal abuse perpetration (Agnew, 1998) both identify an acceptability of general violence, as well as knowledge of specific aggressive acts transmitted via social learning, as influential to perpetration. Further, both individuals who perpetrate IPV and those who perpetrate animal abuse report having various characteristics in common such as ASPD traits, problems with impulsivity, low empathy, and involvement in other illegal behaviors (Agnew, 1998; Ascione, 2001; Edwards et al., 2003; Gleyzer, Felthous, & Holzer, 2002; Hanson et al., 1997; Stith et al., 2004; Schwartz, Fremouw, Schenk, & Ragatz, 2012). These antisocial commonalities may begin to provide some explanation for the prevalence of adulthood animal abuse perpetration in this sample and for its positive association with IPV perpetration in this study. Additional research is needed to better understand the relationship

between both forms of aggression and, ultimately, to better understand male IPV perpetrators.

Findings from the regression analyses did not support our hypothesis that adulthood animal abuse would significantly predict IPV perpetration above and beyond ASPD traits and alcohol use. Rather, we found a trend toward significance for adulthood animal abuse to be significantly associated with the perpetration of severe psychological aggression and physical assault above and beyond ASPD traits and alcohol use. Research shows that the specific types of aggression used by some individuals on animals mirror the aggression they use on human victims (Wright & Hensley, 2003). Additional research shows that male perpetrators of IPV may threaten to harm pets in the midst of altercations with their female partners (Carlisle-Frank et al., 2004). Such behavior is thought to *intensify* existing emotional abuse (Faver & Strand, 2003) and has been considered a form of coercion or control (Johnson, 2006; Loring & Bolden-Hines, 2004). The trends observed in this study for the relationship between adulthood animal abuse, physical and severe psychological IPV perpetration, paired with fact that physical aggression and threats were the most prevalent and frequently endorsed types of adulthood animal abuse perpetration, may provide support for a link between the types of aggression perpetrated against animals and humans. At the same time, however, it is worth noting that the unique variance in physical and severe psychological IPV accounted for by adulthood animal abuse was small. Therefore, future investigations should replicate and extend these findings to examine whether these associations exist in other samples, as well as to better understand the mechanisms underlying these associations.

Implications

Overall, this study's findings, in combination with previous research which has shown that many male perpetrators of IPV also perpetrate a substantial amount of general aggression (e.g. aggression against non-intimate partners) (Hamberger, Lohr, Bonge, & Tolin, 1996; Holtzworth-Munroe et al., 2000) and aggression against children (Appel & Holden, 1998; Edelson, 1999), may suggest that aggression is a pervasive way for some men to interact with other people and their surroundings. Therefore, it is possible that this propensity for aggression would extend to animals. With increasing evidence that aggression may be widespread in many IPV perpetrators' lives, (e.g., aggression against non-intimate partners, children, and animals), interventions that focus on more general cognitive and behavioral tendencies (Murphy & Eckhardt, 2005), such as anger control (Glancy & Saini, 2005; Hamberger et al., 1997), deficits in social information processing (Fite et al., 2008; Holtzworth-Munroe, 1992; Taft, Schumm, Marshall, Panuzio, & Holtzworth-Munroe, 2008), and problematic alcohol use (Stuart, O'Farrell, & Temple, 2009), rather than solely on intimate relationship tendencies (Stuart, Temple, & Moore, 2007), may produce more effective treatment outcomes.

In addition, the finding that the perpetration of adulthood animal abuse trended towards a significant association with particular types of IPV lends support for the idea that by knowing whether they have a history of perpetrating adulthood animal abuse, a better understanding of the IPV some men perpetrate could be obtained (Ascione et al., 2007).

Accordingly, screening for adulthood animal abuse in men mandated to BIPs may provide more information about the nature of their aggression, in order to better tailor interventions. Likewise, asking women in DV shelters whether their partner has abused their pets may provide more information about the IPV they and their pets experienced, which may guide the customization of their care and plans for permanent shelter.

Furthermore, these findings may also have policy implications for the reporting of animal abuse and domestic violence. Inspired by research that shows that animal abuse can coexist with domestic violence in the same home (Ascione et al., 2007; Carlisle-Frank et al., 2004; Faver & Strand, 2003), some researchers advocate for cross-sector reporting of animal abuse and domestic violence among such groups as veterinarians, animal protection organizations, social service agencies, and law enforcement, to increase detection and intervention efforts (Becker & French, 2004; DeGue & DiLillo, 2009; Long, Long, & Kulkarni, 2007). By providing additional evidence for the relationship between both forms of aggression, this study may further encourage information sharing. Further, increased dissemination within these sectors of the evidence in support of this relationship could spread to individuals at large, which may promote increased reporting of both forms of aggression and may increase the number of perpetrators that are apprehended (Schwartz et al., 2012).

Limitations

When interpreting the above findings, it is important to consider the limitations of the current study. First, the measure of animal abuse did not distinguish between companion and non-companion animals, nor did it indicate when the animal abuse occurred. It is plausible that there may be differences in individuals who harm companion animals and those who seek out other animals to harm. Also, differences might be found between individuals whose perpetration of animal abuse occurs within a limited time frame versus individuals who continuously perpetrate aggression against animals. The creation of a measure of adulthood animal abuse that more comprehensively evaluates the construct is needed. Second, antisocial traits and alcohol use were assessed using self-report screening measures. While both the PDQ-4 and AUDIT are psychometrically sound, more rigorous instruments for evaluating such constructs might be beneficial in subsequent studies, such as the Structured Clinical Interview for DSM-IX Axis II Personality Disorders (First, Gibbon, Spitzer, Williams, & Benjamin, 1997) and the Timeline Followback Interview for Alcohol and Drug Use (Fals-Stewart, O'Farrell, Freitas, McFarlin, & Rutigliano, 2000). Third, the use of a comparison group of men who had not engaged in IPV would have strengthened the study design. Fourth, conclusions about causality among the study variables are precluded by the study's cross-sectional design. Future research is needed to determine the specific nature of the relationship between adulthood animal abuse and IPV perpetration. Fifth, full disclosure of sensitive information on such topics as antisocial behaviors, alcohol use, animal abuse, and IPV perpetration may be affected by impression management, particularly in a court-mandated sample. Further, although total number of intervention sessions attended was not significantly related to any of the variables of interest in the current study, it is possible that willingness to disclose socially undesirable information was nonetheless impacted by program attendance. Therefore, subsequent studies should control for social desirability, obtain collateral information, including partner reports, and obtain data before or closer to

the start of the intervention programs. Finally, the specific nature of the population studied and the fact that the majority of the men identified as non-Hispanic Caucasian limits the generalizability of the findings to more diverse populations.

Conclusions

Despite these limitations, findings from the current study contribute to the growing literature on adulthood animal abuse perpetration and its relationship to IPV perpetration. This sample showed an extremely high prevalence of adulthood animal abuse compared to the prevalence in men in the general population. In addition, after controlling for antisocial traits and alcohol use, animal abuse committed as an adult showed a trend towards a significant association with severe psychological and overall physical IPV perpetration. These findings provide further evidence that aggression may be widespread in the lives of some male perpetrators of IPV and that BIPs may benefit from more broad-based approaches that address factors related to IPV perpetration, in addition to those specific to intimate relationships. These findings may also have implications for policies on cross-sector reporting of animal abuse and domestic violence. Replication and continued investigation into these associations is needed.

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Table 1

Prevalence and Frequency of Animal Abuse by Type

	Whole Sample (N= 307)		Animal Abusers (*n*= 125)	
Type	**Prevalence *n* (%)**	**Frequency M *(SD)***	**Prevalence *n* (%)**	**Frequency M *(SD)***
ATAS Total Score	125 (40.72)	3.88 *(9.52)*	125 (100.00)	9.52 *(13.02)*
ATAS Neglect	15 (4.89)	0.16 *(1.08)*	15 (12.00)	0.40 *(1.68)*
ATAS Threat	89 (29.00)	1.41 *(4.15)*	89 (71.20)	3.47 *(5.94)*
ATAS Physical	100 (32.57)	2.30 *(6.61)*	100 (80.00)	5.65 *(9.42)*

Note. ATAS = Aggression Towards Animals Scale

Table 2

Correlations, Means, and Standard Deviations among Study Variables

	1.	2.	3.	4.	5.	6.	7.	8.
1. Psychological Aggression	—							
2. Physical Assault	.56**	—						
3. Severe Psychological Aggression	.64**	.64**	—					
4. Severe Physical Assault	.37**	.78**	.53**	—				
5. PDQ-4 ASPD	.29**	.29**	.33**	.23**	—			
6. AUDIT	.26**	.27**	.22**	.22**	.17**	—		
7. ATAS Total Score	.14*	.18**	.18**	.15**	.18**	.14*	—	
8. BIP Sessions Attended	.08	−.02	.07	−.01	−.03	.06	−.04	—
M	30.00	8.00	5.31	2.17	2.66	7.77	3.88	9.75
SD	30.41	16.37	11.10	7.20	2.19	7.56	9.52	7.05

Note.

* $p < .05$;

** $p < .01$

PDQ-4 ASPD = Personality Diagnostic Questionnaire-Antisocial Personality Disorder Scale; AUDIT = Alcohol Use Disorders Identification Questionnaire; ATAS = Aggression Towards Animals Scale; BIP=Batterer Intervention Program.

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Table 3

Hierarchical Linear Regression Analyses for Variables Predicting Psychological Aggression

Psychological Aggression	**B**	**SE B**	**β**	**R^2**	**ΔR^2**	**F**
Model 1				.13		22.24
PDQ-4 ASPD	.15	.03	.25***			
AUDIT	.04	.01	.21***			
Model 2				.13	.01	15.43
PDQ-4 ASPD	.15	.03	.24***			
AUDIT	.04	.01	.21***			
ATAS Total	.09	.07	.07			
Severe Psychological Aggression						
Model 1				.14		23.74
PDQ-4 ASPD	.16	.03	.30***			
AUDIT	.03	.01	.17**			
Model 2				.15	.01	17.18
PDQ-4 ASPD	.15	.03	.28***			
AUDIT	.02	.01	.16**			
ATAS Total	.11	.06	.10†			

Note.

† p =.057;

** p <.01;

*** p <.001;

PDQ-4 ASPD = Personality Diagnostic Questionnaire-Antisocial Personality Disorder Scale; AUDIT = Alcohol Use Disorders Identification Questionnaire; ATAS = Aggression Towards Animals Scale.

Table 4

Hierarchical Linear Regression Analyses for Variables Predicting Physical Assault

Physical Assault	B	SE B	β	R^2	ΔR^2	F
Model 1				.14		23.91
PDQ-4 ASPD	.15	.03	.26***			
AUDIT	.04	.01	.23***			
Model 2				.15	.01	17.35
PDQ-4 ASPD	.14	.03	.24***			
AUDIT	.04	.01	.21***			
ATAS Total	.12	.06	.11††			
Severe Physical Assault						
Model 1				.09		14.41
PDQ-4 ASPD	.08	.02	.19**			
AUDIT	.02	.01	.19**			
Model 2				.10	.01	10.62
PDQ-4 ASPD	.07	.02	.18**			
AUDIT	.02	.01	.18**			
ATAS Total	.08	.05	.09			

Note.

†† p =.052;

** p <.01;

*** p <.001

PDQ-4 ASPD = Personality Diagnostic Questionnaire-Antisocial Personality Disorder Scale; AUDIT = Alcohol Use Disorders Identification Questionnaire; ATAS = Aggression Towards Animals Scale.