ANIMAL WELFARE AND PROTECTION – UNDERSTANDING THE NATURE OF ANIMAL CRUELTY AND INTERPERSONAL VIOLENCE

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Abstract

Veterinarians as professionals play a major role in the wellbeing of their patients. Ensuring the animals' needs and healthcare, however, is not enough when the whole society should be involved in improving animal welfare and preventing maltreatment and animal cruelty. Our study focused on the veterinary practitioners as specialists who should be able to recognize types of animal abuse and understand its role in interpersonal violence. For this purpose, an anonymous written questionnaire was distributed among veterinarians in Bulgaria and Turkey. The results showed that the professionals' understanding on the nature of animal cruelty was influenced by respondents' demographics and over 80% of Bulgarian and Turkish veterinarians agreed on the ability of animals to experience emotions (P < 0.05). The most recognized type of animal cruelty was physical abuse combined with neglect. The majority of the practitioners in both countries have awareness on the link between animal abuse and violence against people. These perceptions were affected to some extent by factors like gender and pet ownership (P < 0.05).

Key words: animal cruelty, animal welfare, interpersonal violence, veterinary practice.

INTRODUCTION

Veterinarians are uniquely positioned to detect and intervene in cases of animal cruelty due to their interactions with both animals and their owners. The role of the veterinary profession extends beyond improving animal health to include public education and advocacy for animal welfare (Balkin et al., 2013). Animal cruelty and violence are not only ethical issues but also matters of public health and societal concern. Studies within the context of the relationship between animal cruelty and broader forms of violence, such as domestic violence, highlight the societal dimension of this issue (Ascione, 1999; Flynn, 2001).

Animal rights and animal welfare have become increasingly important topics in today's societal structure (Wu, 2022). The growing awareness of this issue necessitates that those various professionals, particularly veterinarians, play a critical role in combating violence against animals (Patterson-Kane et al., 2022). Veterinarians are not only responsible for safeguarding the physical health of animals but also serve as key actors in recognizing,

reporting, and initiating legal proceedings in cases of animal abuse (Kara & Yılmaz, 2019). However, cases of animal abuse do not only affect animals: it is now a well-established fact that such situations are directly related to interpersonal violence, particularly against more vulnerable groups such as children and women (Davis et al., 2019). Numerous studies have shown that violence against animals is closely linked to domestic violence and other social issues (Kellert & Felthous, 1985; Patterson-Kane & Piper, 2009; Burchfield et al., 2022). Some authors (Baldry, 2003; DeGue & DiLillo, 2009; Cleary et al., 2021) argue that animal abuse is often associated with domestic violence and that animals are used as tools of control by perpetrators. In the recent years, the recognition of animal cruelty as an indicator and its connection to domestic violence has gained importance (Fitzpatrick et al., 2021), supported by the 'link' theory (Lockwood & Ascione, 1998). With regard to this, the detection of animal abuse cases is crucial for both victims of violence - animals and humans. However, some research indicates that veterinarians may struggle to recognize animal

maltreatment and may be reluctant to intervene (Müller & Bonk, 2020). Their awareness varies across countries due to factors such as cultural norms and legal regulations (Merz-Perez et al., 2001). Another reason is that veterinarians lack sufficient training professional guidance on animal abuse (Tuna & Uygun, 2020). Additionally, most cases of animal abuse are concealed or misrepresented by the animals' owners, making it difficult for veterinarians to detect such situations (Harman & O'Neil, 2021).

In Bulgaria and Turkey, veterinary medicine is a respected field that contributes to animal health, public safety, and environmental sustainability. However, limited training on animal cruelty and differences in legal practices represent barriers to effective intervention. The study is aimed at assessing veterinary practitioners' current awareness on problem, thus to emphasize the necessity to integrate animal protection education fully into veterinary curricula and continuous professional development programs.

MATERIALS AND METHODS

Design of the study

A cross-sectional study was conducted through a survey (an anonymous written questionnaire) administered to veterinary practitioners in Bulgaria and Turkey in online form with the support of the national veterinary associations. The survey was conducted in the period from January 2024 to August 2024 and all participants were informed about its voluntarily character and that by filling in the questionnaire they give their informed consent for participation. The survey included questions on the respondents' demographics, clinical practice characteristics, and their understanding of animal cruelty. A total of 445 veterinarians participated in the study, with 222 from Bulgaria and 223 from Turkey. The participants had different specialization, mainly working with pets, farm animals, and exotic species in urban and rural

After collecting the results from the online questionnaire, all textual answers were converted into numerical values for further processing by the authors.

Statistical analysis

The data were analyzed using SPSS software (IBM SPSS-Inc., 2019, SPSS Reference Guide 26 SPSS, Chicago, USA). The methods used for analysis were descriptive statistics (frequency distribution) and chi-square test, the latter was applied to determine significant relationships between the respondents' variables and awareness levels. A threshold of p < 0.05 was considered significant. Visually, the results were presented in tables and diagrams (Excel, Windows 10).

RESULTS AND DISCUSSIONS

The respondents who participated in the study come from diverse background. All of them were qualified veterinarians from both genders and while the Bulgarian veterinary practitioners had almost balanced female: male ratio (BG 46.4% females and 53.6% males) which corresponded with the global trend feminization of the profession (Irvine & Vermilya, 2010; Gordon et al., 2023), nearly two-thirds of the Turkish veterinarians were male (TR 35.6% females and 64.4% males), similar to the findings of Balaban & Günes (2021) on the practitioners in Turkey (Table 1). Gender disparities in Turkey may reflect societal norms that could affect professional attitude to some extent. The majority of the respondents fall in the 30 to 60 age group (BG 73.9%) who appear to be 64.4%; TR veterinarians with more professional experience (FVE, 2023; Todorov & Balieva, 2024), while approximately one-third were between 25 and 29 years old (BG 31.1%; TR 24.9%) who could be described as newly graduated and very small proportions of the participants counted for other age categories. Another indicator of importance to the veterinarians' demographics appeared to be the location of their clinic/dispensary. Most of the respondents practiced in clinics established in highly populated urban regions, as capitals or big cities and administrative centers (BG 86.9% in total: TR 97.2% in total), as described also by Gonschor et al. (2023), while very few of them were located in less populated small towns (BG 1.8%; TR 0.4%) or villages in rural areas (BG 10.8%; TR 2.4%).

Regarding the diverse range of animal species that the veterinarians were specialized in treating, the results showed that half of the respondents were small animals practitioners working with pet animals (BG 50.0%; TR 47.8%), in line with the conclusions by the FVE (2023) about the contribution of the companion veterinarians to the profession in Europe. Some of the participants of the survey worked predominantly with farm animals (BG 16.2%; TR 19.4%) and equal share of both nationalities had a mixed practice for small and large animals (BG 27.9%; TR 27.3%). As new branches of veterinary practice had become attractive in the recent decade (De Brivne & Iatridou, 2016) there were practitioners who worked with exotic animals (BG 3.2%) and wildlife (BG 2.7%) and others occupied with different responsibilities as for example working with stray dogs or race horses (TR 4.0%) (Table 1).

Table 1. Veterinary practitioners' demographics compared between Bulgarian and Turkish respondents

| | Nationality | | | |
|--------------------------|-------------|------------|---------|------------|
| Respondents' | Bulgarian | | Turkish | |
| Demographics | Count | Percentage | Count | Percentage |
| Gender | | | | |
| Female | 103 | 46.4 | 90 | 35.6 |
| Male | 119 | 53.6 | 163 | 64.4 |
| Age (years) | | | | |
| 24 | 6 | 2.7 | N/A | N/A |
| 25-29 | 69 | 31.1 | 63 | 24.9 |
| 30-60 | 143 | 64.4 | 187 | 73.9 |
| 61-64 | 2 | 0.9 | N/A | N/A |
| 65 and over | N/A | N/A | 3 | 1.2 |
| Practice location | | | | |
| Capital city | 22 | 9.9 | 121 | 47.8 |
| City - Regional | 129 | 58.1 | 62 | 24.5 |
| administrative | | | | |
| center | | | | |
| City - Municipal | 42 | 18.9 | 63 | 24.9 |
| administrative | | | | |
| center | | | | |
| Town | 4 | 1.8 | 1 | 0.4 |
| Village | 24 | 10.8 | 6 | 2.4 |
| Type of practice | | | | |
| Companion | 111 | 50.0 | 119 | 47.0 |
| animal practice | 2.6 | 4.50 | 40 | 40.4 |
| Farm animal | 36 | 16.2 | 49 | 19.4 |
| practice | - (2 | 27.0 | | 27.2 |
| Mixed practice | 62 7 | 27.9 | 69 | 27.3 |
| Exotic animals' | 1/ | 3.2 | N/A | N/A |
| practice Wild animals | - | 2.7 | NI/A | NI/A |
| | 6 | 2.7 N/A | N/A | N/A |
| Other | N/A | N/A | 10 | 4.0 |

^{*}Values may not total 100% for each category because of non-responders and rounding of values.

As the veterinarians appeared to hold the sole professional responsibility to treat and advocate for the well-being of the animals, our respondents were fully in consent with the concept that animals as living beings could form and experience emotions (BG 82.0% "strongly agree", 13.1% "agree"; TR 85.0% "strongly agree", 13.8% "agree") (Figure 1). Their perceptions were fully in line with the implemented legislative framework on animal protection, covering the concept of the "five freedoms" (Özgür, 2007; Mellor, 2019; Robertson & Goldsworthy, 2022), including the humane treatment and veterinary care. Recent research confirmed that non-human animals should be perceived as sentient beings, having the ability to feel pain and distress (Coleman, 2008; Cornish et al., 2018). Some authors even suggested that demographic factors as gender for example could influence the perceptions on animal sentience and their emotions (Phillips et al., 2012; Tamioso et al., 2018). Such dependence was confirmed for both Bulgarian and Turkish veterinarians as a significant difference was found between gender and the respondents' perceptions of the ability of animals to experience emotions (All $\chi 2 = 12.567$; df = 4; p = 0.014). In fact, greater concern to animals was shown usually by women (Herzog, 2007).

High shares of both nationalities also stated that as professionals they were fully aware of the nature of animal cruelty (BG 79.3% "strongly agree", 19.8% "agree"; TR 58.9% "strongly agree", 28.9% "agree"). This finding held great importance as the veterinarians should at early stage recognize various acts of animal abuse in order to prevent further violence in society (Morris, 2010; Lachance, 2016).

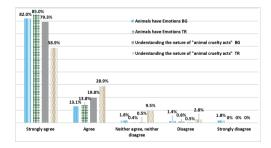


Figure 1. Veterinarians` understanding on the nature of animal cruelty and their agreement with the ability of animals to form emotions

Although the respondents declared high comprehension on animal cruelty in general, it

appeared that their knowledge on the main types of animal abuse differed a lot (Figure 2). All acts of animal cruelty were defined under four main categories (Rowan, 2006; Munro & Munro, 2008) but the respondents recognized predominantly physical abuse (BG 36.5%; TR 2.0%), psychological abuse (BG 8.6%; TR 0.4%) and neglect (BG 6.8%; TR 1.6%), while sexual abuse remained almost non-existent (BG 2.7%: TR 0%). At the same time almost all of the Turkish practitioners (TR 96.0%) and nearly 40% of their Bulgarian colleagues (BG 39.6%) confirmed their high awareness on the combination of maltreatment of animals encompassing both physical abuse and neglect. This fact could be explained with the more visible signs of violence against the animals like battered pets (Newberry, 2018) or starved and hoarded animals (Williams, 2014).

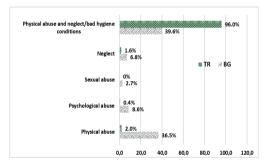


Figure 2. Awareness of veterinary practitioners in Bulgaria and Turkey of the types of animal abuse

Once more, gender was found to be a significant factor increasing the respondents' awareness of the four different types of cruelty towards animals (All $\chi 2 = 20.732$; df = 3; p = 0.000), with female veterinarians showing more ethical concerns with regard to animal abuse (Williams et al., 2022). It appeared that the location of the veterinary practice could influence significantly the practitioners' awareness of different type of animal abuse (All $\chi 2 = 111.848$; df = 20; p = 0.000) as the urban settlements were likely to increase the rate of animal cruelty offences due to social and neighbourhood disorganization (Reese et al., 2020). On the other hand, some rural areas were reported to have high rate of neglect and hoarding cases (Whitfort et al., 2021).

In some countries veterinarians work closely with other professionals in order to help the

victims suffering from abuse (Paterson et al., 2024). Particular guidelines were developed and introduced to the veterinary specialists to help them in recognizing the signs of violence towards animal and human victims (AWF. 2016). However, as emphasized by Niemiec & Kogan (2024), the insufficient level of knowledge and understanding of interpersonal violence could appear as a serious barrier to addressing the violations of human and animal welfare. The results from the survey in the two neighbouring countries - Bulgaria and Turkey, the majority of the respondents stated very high level of awareness regarding the link between animal abuse and domestic violence (BG 58.1% "strongly agree", 27.0% "agree"; TR 70.0% "strongly agree", 22.9% "agree") (Figure 3). These findings corresponded with other studies as Oellig et al. (2024) reported about 90% awareness of this interpersonal violence among licensed veterinarians. Regarding the high percentage of Turkish practitioners, it could be attributed to recent efforts in Turkey to protect stray animals. which had become a significant national agenda item.

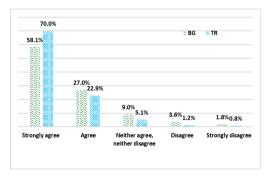


Figure 3. Recognition of the connection between acts of cruelty against animals and acts of violence against people (children, women, elder people)

Research showed that there were some demographic characteristics that could affect the comprehension of the interconnected human and animal abuse (Joo et al., 2020) which was confirmed for the Bulgarian and Turkish veterinarians. The results indicated that gender influenced the recognition of the link between animal abuse and interpersonal violence (All $\chi 2 = 14.071$; df = 4; p = 0.007) with women being more perceptive.

CONCLUSIONS

The survey about the Bulgarian and Turkish veterinary practitioners showed varying levels of awareness on the specific types of animal abuse and interpersonal violence influenced by different factors. The findings revealed that while both groups of respondents presented very high levels of comprehension on animal sentience and emotions. understanding of the nature of animal cruelty, their awareness of specific types of abuse and their role in identifying domestic violence varies. The results indicated that gender and practice location influenced veterinarians' animal cruelty. perceptions to Female veterinarians showed greater ethical concern, and those practicing in urban areas were more aware of cases of animal abuse.

However, their perceptions of the particular acts of violence against animals and its role as an indicator for domestic violence, made clear the necessity of implementation of advanced training modules and continuing education programs for veterinarians on animal protection and recognition of animal abuse. Additionally, interdisciplinary cooperation and joint efforts with other professionals like law enforcement authorities and social workers should be considered in promoting animal welfare and societal well-being under adequate intervention strategies.

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REFERENCES

- Ascione, F. R. (1999). The abuse of animals and domestic violence: A national survey of shelters for women who are battered. *Society & Animals*, 7(3), 205-218. https://doi.org/10.1163/156853099X00072
- AWF Animal Welfare Foundation. (2016). Recognising abuse in animals and humans.

- Comprehensive guidance for the veterinary team.

 Retrieved March 5, 2025, from https://www.animalwelfarefoundation.org.uk/wp-content/uploads/2017/12/20160415-AWF-Recognising-abuse-in-animals-and-humans-v10-web.pdf
- Balaban, C. & Güneş, H. (2021). A Research on some socio-demographic characteristics of companion animal veterinarians and economic structures of companion animal clinics in Istanbul. *Journal of Istanbul Veterinary Sciences* 5(2):72-86. DOI: 10.30704/http-www-jivs-net.964759
- Baldry, A. C. (2003). Animal abuse and exposure to interparental violence in Italian youth. *Journal of Interpersonal Violence*, 18(3), 258–281.
- Balkin, D. E., Janssen, L.A. & Merck, M. (2013). The Legal System: The Veterinarian's Role and Responsibilities. In: Veterinary Forensics: Animal Cruelty Investigations, Second Edition. Edited by Melinda D. Merck. John Wiley & Sons, Inc.
- Burchfield, K.B., Markowitz, F.E. & Koskela, T. (2022). An Examination of Community-Level Correlates of Animal Welfare Offenses and Violent Crime in Finland. *Int Criminol* 2, 174–187. https://doi.org/10.1007/s43576-021-00039-6).
- Cleary, M., Thapa, D. K., West, S., Westman, M. & Kornhaber, R. (2021). Animal abuse in the context of adult intimate partner violence: A systematic review. *Aggression and Violent Behavior*, Volume 61, 101676, https://doi.org/10.1016/j.avb.2021.101676
- Coleman, G. (2008). Public Perceptions of animal pain and animal welfare. In Scientific Assessment of Management of Animal Pain; Mellor, D., Thornber, P.M., Bayvel, D., Kahn, S., Eds.; OIE: Paris, France.
- Cornish, A., Wilson, B. Raubenheimer, D. & McGreevy, P. (2018). Demographics Regarding Belief in Non-Human Animal Sentience and Emotional Empathy with Animals: A Pilot Study among Attendees of an Animal Welfare Symposium. *Animals*, 8, 174.
- Davis, M. S., White, D. E. & Collins, P. S. (2019). Animal cruelty and its intersection with domestic violence: The veterinarian's role in prevention. *Journal of Interpersonal Violence*, 34(5), 1012-1029. https://doi.org/10.1177/0886260517707071
- De Briyne, N. & Iatridou, D. (2016). Challenges seen with treatment of exotic pets in veterinary practice.

 AWSELVA J. 2016. Retrieved February 28, 2025, from Available online:

 https://www.researchgate.net/publication/333002661

 Challenges_Seen_with_Treatment_of_Exotic_Pets_in_Veterinary_
 - Practice_Exotic_Pets_in_Veterinary_Practice
- DeGue, S. & DiLillo, D. (2009). Is animal cruelty a "red flag" for family violence? Investigating co-occurring violence toward children, partners, and pets. *Journal of Interpersonal Violence*, 24(6), 1036–1056.
- FVE Federation of Veterinarians of Europe. (2023). Survey of the Veterinary Profession in Europe – 2023. Retrieved February 13, 2025, from https://fve.org/cms/wp-content/uploads/FVE-Survey-2023-updated-13-Dec-23.pdf
- Fitzpatrick, D., Fink, L. & Burns, R. (2021). The link between animal abuse and domestic violence: A

- global review of veterinary involvement. *Veterinary Sciences*, 8(3), 58-69. https://doi.org/10.3390/vetsci8030058
- Flynn, C. P. (2001). Acknowledging the zoological connection: A sociological analysis of animal cruelty. Society & Animals, 9(1), 71-87. https://doi.org/10.1163/156853001X00071
- Gonschor, C., Pohl, R., Woitha, U., Thielmann, B. & Böckelmann, I. (2023). Well-being of veterinarians in rural and urban areas. *Front. Vet. Sci.*, *Sec. Veterinary Humanities and Social Sciences*, Volume 10 2023 | https://doi.org/10.3389/fvets.2023.1276229
- Gordon, S., Parkinson, T., Byers, S., Nigito, K., Rodriguez, A., Werners-Butler, C., Haynes, J. & Guttin, T. (2023). The Changing Face of Veterinary Professionalism—Implications for Veterinary Education. *Education Sciences*, 13(2), 182. https://doi.org/10.3390/educsci13020182
- Harman, B. & O'Neil, T. (2021). Understanding the intersection of animal cruelty and interpersonal violence: Implications for veterinary practice. *Journal of Animal Welfare Science*, 13(4), 221-234. https://doi.org/10.1016/j.jaws.2021.01.015
- Herzog, H. A. (2007). Gender differences in humananimal interactions: A Review. Anthrozoos; 20: 7-21
- Irvine, L. & Vermilya, J. R. (2010). Gender Work in a Feminized Profession: The Case of Veterinary Medicine. *Gender & Society*, 24(1), 56-82. https://doi.org/10.1177/0891243209355978
- Joo S., Chun M.S. & Jung, Y. An. (2020). Analysis of Veterinary Practitioners' Intention to Intervene in Animal Abuse Cases in South Korea. *Animals*, 10, 802
- Kara, B. & Yılmaz, A. (2019). Veterinerlerin hayvan istismarı konusundaki tutumları ve profesyonel müdahaleleri. Veteriner Hekimliği Dergisi, 15(3), 88-95.
- Kellert, S. R. & Felthous, A. R. (1985). Childhood cruelty toward animals among criminals and noncriminals. *Hum Relat*;38(12):1113–1129. doi:10.1177/001872678503801202
- Lachance, M. (2016). Breaking the silence: The veterinarian's duty to report. Animal Sentience; 6: 1.
- Lockwood, R. & Ascione, F. R. (Eds.). (1998). Cruelty to animals and interpersonal violence: Readings in research and application. Purdue University Press.
- Mellor, D. J. (2019). Welfare-aligned Sentience: Enhanced Capacities to Experience, Interact, Anticipate, Choose and Survive. *Animals*, 9(7), 440. https://doi.org/10.3390/ani9070440
- Merz-Perez, L., Heide, K. M. & Silverman, I. J. (2001). Childhood cruelty to animals and subsequent violence against humans. International *Journal of Offender Therapy and Comparative Criminology*, 45(5), 556-573. https://doi.org/10.1177/0306624X01455003
- Morris, A. (2010). Reporting animal abuse: a vet's responsibility to society? *Vet Record*, 167 (17), 638.
- Müller, M. & Bonk, T. (2020). Enhancing veterinarians' roles in identifying and addressing animal cruelty: Training and interventions. *Veterinary Education*

- Journal, 11(1), 12-19. https://doi.org/10.1016/j.vejo. 2020.02.002
- Munro, R. & Munro, H. M. C. (2008). Animal abuse and unlawful killing: Forensic veterinary pathology. London: Elsevier.
- Newberry, M. (2018). Associations between different motivations for animal cruelty, methods of animal cruelty and facets of impulsivity. *Psychology Crime* and Law, 24(1):52-78.
- Niemiec, R. & Kogan, L.R. (2024). Animal Abuse Investigations: Challenges and Recommendations to Improve Animal and Human Welfare. *Animals*, 14, 3602. https://doi.org/10.3390/ani14243602
- Oellig, L., Lindsjö, J. & Röcklinsberg, H. (2024). Exploring Swedish veterinarians' awareness of non-accidental-injuries, animal abuse and the Link to domestic violence, and their role in addressing this societal issue. Front. Vet. Sci., Sec. Veterinary Humanities and Social Sciences, Volume 11. https://doi.org/10.3389/fvets.2024.1439106
- Özgür, A. (2007). Hayvan gönenci açısından Türkiye'de veteriner hekimlik ile ilgili mevzuatın değerlendirilmesi. *Vet. Hek. Der. Derg.* 78, 45–48.
- Paterson, R., Boller, E., Kim, Y., Hammond, K. & Diemer, K. (2024). What can veterinary professionals do? Measuring the effect of one domestic violence training pilot program on veterinary professionals' capacity to recognize, respond, and refer human victims of domestic violence. Front. Vet. Sci. 11:1254373. doi: 10.3389/fvets.2024.125437
- Patterson-Kane, E. G. & Piper, H. (2009). Animal abuse as a sentinel for human violence: a critique. *J Soc Issues*:;65(3):589–614. doi:10.1111/j.1540–4560.2009.01615.x
- Patterson-Kane, E. G., Kogan, L. R., Gupta, M. E., Touroo, R., Niestat, L. N. & Kennedy-Benson, A. (2022). Veterinary needs for animal cruelty recognition and response in the United States center on training and workplace policies. *Journal of the American Veterinary Medical Association*, 260(14), 1853-1861. https://doi.org/10.2460/javma.22.02.0084
- Phillips, C., Izmirli, S., Aldavood, J., Alonso, M., Choe, B., Hanlon, A., Handziska, A., Illmann, G., Keeling, L., Kennedy, M., Lee, G., Lund, V., Mejdell, C., Pelagic, V. & Rehn, T. (2012). Students' attitudes to animal welfare and rights in Europe and Asia. *Animal Welfare*, 21: 87-100
- Reese, L. A., Vertalka, J. J. & Richard, C. (2020).

 Animal Cruelty and Neighbourhood Conditions.

 Animals, 10(11), 2095.

 https://doi.org/10.3390/ani10112095
- Robertson, I. & Goldsworthy, D. (2022). Recognising and Defining Animal Sentience in Legislation: A Framework for Importing Positive Animal Welfare through the Five Domains Model. 48 (1) *Monash U. L. Rev.* 244; SSRN: https://ssrn.com/abstract=3910864
- Rowan, A. N. (2006). Animal Cruelty: Definitions and sociology. *Behavioural and Brain Sciences*, 29 (3), 238-239
- Tamioso, P. R., Rucinque, D. S., Miele, M., Boissy, A. & Molento, C. F. M. (2018). Perception of animal sentience by Brazilian and French citizens: The case

- of sheep welfare and sentience. *PLoS ONE*, 13(7): e0200425.
- Todorov, Z. & Balieva, G. (2024). Importance of softskills for managing veterinary practices. *Scientific* Papers Series Management, Economic Engineering in Agriculture and Rural Development, Vol.24(2)2024, 933-940.
- Tuna, P., & Uygun, H. (2020). Hayvan hakları ve veteriner hekimlerin etik sorumlulukları üzerine bir değerlendirme. Veteriner Hekimliği Akademisi Dergisi, 19(2), 56-63.
- Whitfort, A., Woodhouse, F., Ho, S. & Chun, M. (2021).
 A Retrospective Analysis of Typologies of Animal Abuse Recorded by the SPCA, Hong Kong. *Animals*, 11(6), 1830. https://doi.org/10.3390/ani11061830

- Williams, B. (2014). Animal hoarding recognition and possible interventions. *In Practice* 36(4):199-205. DOI: 10.1136/inp.g1974
- Williams, J. M., Wauthier, L., Scottish, S.P.C.A. & Knoll, M. (2022). Veterinarians' experiences of treating cases of animal abuse: An online questionnaire study. *Vet Rec.*;191(11):e1975. doi: 10.1002/vetr.1975.
- Wu, S.-Y. (2022). Animal Welfare Legislation, Enforcement Mechanism and Influence of Legislation on Society: An Empirical Legal Study in Taiwan. Dissertation in Social Sciences and Business Studies. Joensuu: Itä-Suomen yliopisto, Publications of the University of Eastern Finland. ISSN: 1798-5757 (PDF).