

DOI 10.7251/VETJEN2301050D

UDK 636.066:591.5:378.4.01

**Original Scientific Paper****OPINION OF FIRST AND FINAL YEAR VETERINARY STUDENTS ON THE RIGHTS AND WELFARE OF ANIMALS****Dajana DAVITKOV, Branislav VEJNOVIĆ, Višnja JOVANOVIĆ, Darko DAVITKOV, Sofija ŠOLAJA, Jelena Aleksić RADOJKOVIĆ\***

University of Belgrade, Faculty of Veterinary Medicine, Belgrade, Serbia

\*Corresponding author: Jelena Aleksić Radojković, alexjellena@vet.bg.ac.rs

**Summary**

Nowadays, the role of animals in society has changed. Animals are no longer considered as property, but as living beings. When it comes to veterinary medicine, there are also changes in interests between men and women, as well as professional preferences. Studies have shown that gender and concern for animal welfare also influence the level of concern for animal health. The aim of this study was to assess the difference in opinion between first and final year veterinary students in relation to ethical dilemmas and animal welfare. A total of 200 first and final year veterinary students were included in the study. *Survey Monkey* was used to collect information, and the survey consisted of ten questions. The results are divided into demographic data, ethical dilemmas in the field of animal rights and opinion on euthanasia. No statistically significant difference was found between the genders and the place of growing up of the examined students. Almost half of the first year students (49%) expressed a desire to work with social animals, and only 11% with farm animals. When it comes to final year students, most of them also want to work with social animals (36%), but there is also an interest in working with farm animals (20%). Differences in opinion about animal rights and euthanasia were more influenced by the gender of the students compared to the year of study. The study showed that, in the student population, there is a reduced interest in farm animals, and that fact should be given more attention. Also, it is necessary to guide students more towards their areas of interest during their studies, so that, when get their diploma, they can immediately know in which area of veterinary medicine they want to work.

**Key words:** survey, animal welfare, animal rights, students.

---

## INTRODUCTION

Throughout history, the role of animals in people's lives has changed. Today, more importance is related to the ethical issues and problems of farm, reproductive and laboratory animals. The decision to study veterinary medicine is often made at a young age because of a love for animals (Serpell, 2005). Today, the veterinary profession is no longer dominated by men. For example, in Australia, 80% of graduate students are women (Porritt, 2013). Changing gender relations in veterinary medicine caused changes in career preferences (Lofstedt, 2003).

Data from the literature indicate that in the first years of study, students show greater concern for the welfare and health of animals (Paul and Podberscek, 2000). Also, an American study on pain in animals showed that first-year students would rather treat animals for pain compared to students in higher years of study. An interesting finding is that the view on animal welfare can be changed by attending courses on animal welfare, as proved by Hazel et al. (2011).

Studies have shown that gender and concern for animal welfare also influence the level of empathy towards animal health (Cornish et al., 2016). A high level of empathy towards animals was more present in women compared to men (Izmirli et al., 2014). Changes in gender relations are not the only element that indicates different views on ethical dilemmas among students, but professional interests were also an important part of many studies. Students who want to work with farm animals show less empathy compared to students who want to work with social animals (Levine et al., 2005). In recent years, people's awareness of the importance of the health, protection and well-being of animals has increased, and the role of veterinary medicine students is significant, because they will find themselves in everyday ethical dilemmas regarding animals and their keepers or owners.

The aim of this study was to investigate the difference between first-year and final year veterinary students in their views on ethical dilemmas such as euthanasia and to examine whether there are differences in demographics, career and degree of study that would influence their attitudes about welfare and animal rights.

## MATERIALS AND METHODS

The survey was conducted on 200 students (100 first year students and 100 final year students) of the Faculty of Veterinary Medicine University of Belgrade. The questionnaire was designed to explore professional interests, students' opinions on euthanasia and animal rights. The survey was made using *Survey monkey* and was available online in the period from November 1 to December 1, 2021. This study was approved by the Ethics Committee of the Faculty of Veterinary Medicine University of Belgrade (No. 1/21).

---

All students in the final year of studies have already attended the courses Behavior, welfare and protection of animals and Ethics and communication in veterinary medicine, while students in the first year have only attended the course Behavior, welfare and protection of animals. Anonymity was guaranteed for all participants. The questionnaire consisted of ten questions. The first two questions were demographic questions (gender and place of residence), and the third question was related to professional interests. The next seven questions were ethical dilemmas about animal rights and euthanasia. All data were checked for errors and statistical analysis was performed using *GenStat* software.

## RESULTS

### FIRST YEAR STUDENTS

#### Demographic data

Out of a total of 100 first year students, 33% were men and 67% were women. All students were in the first semester of their studies. 70% of the students were from the urban area, and 30% from the rural area. For professional interest, the majority of surveyed students chose working with pets (49%). Farm animals were the first choice for 11% of students, 4% of students chose inspection work, 4% wanted to engage in scientific work, one wanted to work in the field of animal food hygiene, and 31% of students were undecided.

#### Ethical dilemmas regarding animal rights and euthanasia

When 100 first year students were asked if they think that veterinarians and veterinary students have enough empathy for animals, the opinion was divided. The majority (73%) believe that there is empathy towards animals in the veterinary profession, and 27% believe that there is not enough empathy towards animals in the veterinary profession.

Students were asked two questions related to their opinion on euthanasia. First, there was an ethical dilemma: whether to euthanize a healthy animal only at the owner's request. To this question, 67% of students answered that they would not euthanize a healthy animal, and 33% would perform euthanasia. Another question was whether they would euthanize an animal that exhibited aggressive behavior. A total of 43% of respondents would euthanize an aggressive animal, and 57% would not decide on euthanasia, even though the animal is aggressive.

The third set of questions was about animal rights. When asked whether they should care more about the animals or the owner when making decisions, 72% of students said that they would primarily care for the animal, and 28% would primarily respect

---

the owner's wishes. On the second question in the third set, students were asked whether the curriculum devotes enough time to animal ethics and welfare. A total of 40 (41%) respondents believed that enough time was devoted to these subjects, and 59 (59%) believed that animal welfare and ethics should have more space in the curriculum. The last question in the third part was whether the students think that the field of animal welfare should be more represented and whether animals should be more protected and have greater rights. Of the three answers offered, 51 of them (70%) believed that they should, 4 that they already had enough rights, and 45 respondents answered that they were not familiar with animal rights. The last question was whether they observe the animal as a subject or an object. Only 4% of the students respond that animals are objects, and 96% respond that animals are subjects.

## **SIXTH YEAR STUDENTS**

### **Demographic data**

Out of a total of 100 surveyed final year students, 42% were men and 58% were women. All students attended the 11<sup>th</sup> semester. 61% of respondents were from urban areas, and 39% from rural areas. For professional interest, the majority of evaluated students chose to work with pets, namely 36% of surveyed students. Farm animals were the first choice for 20% of students, 8% of students chose inspection work, no one wanted to work in the scientific field, and 9% of students wanted to work in the area of food hygiene of animal origin. Other students (27%) still did not know what they would do after graduation. Based on the statistical analysis, it was observed that there is a statistical significance between the choice of the field of veterinary activity among first and final year students ( $p < 0.0053^{**}$ ).

### **Ethical dilemmas regarding animal rights and euthanasia**

When 100 students were asked if they think that veterinarians and veterinary students have enough empathy for animals, the opinion was divided. Almost half of the surveyed students (47%) have the opinion that there is no empathy for animals in the veterinary profession, and 53% of students thought otherwise. Statistical analysis showed that there is statistical significance ( $p < 0.0052^{**}$ ) in the opinion of first and final year students when it comes to students' empathy towards animals. When asked about euthanasia, students were asked two questions. The first was an ethical dilemma: whether to euthanize a healthy animal on the owner's request. To this question, 61% of students answered that they would not euthanize a healthy animal, and 39% of students would perform euthanasia only at the owner's request.

---

Another question regarding euthanasia was whether to euthanize an animal that shows signs of aggressive behavior. A total of 64% of the surveyed students would euthanize an aggressive animal, and 36% would not. For the second question regarding the euthanasia of a healthy but aggressive animal, it was observed that there is statistical significance ( $p < 0.0045^{**}$ ) in the opinion of students of different years of study.

The third set of questions was about animal rights. When asked whether they should worry more about the animals or the owner when making decisions, 79% of the students said that they would be concerned about the animals first, and 21% of the students would give priority to the owner. On the second question in the third set, students were asked about the curriculum at the Faculty and whether enough time is devoted to ethics and animal welfare. A total of 41% of surveyed students believe that enough time is devoted, and 59% believe that animal welfare and ethics should be represented in classes with a larger number of classes. The last question in the third part was whether the students think that the welfare of animals should be more represented and whether animals should be more protected, as well as have greater rights. In this question, students could give one of three answers, and 70% of students thought they should have more rights, 15% that they already have enough rights, and the remaining 15% answered that they do not know enough about animal rights.

The last question was whether they observe the animal as a subject or an object. Only 17% of students answered that animals are objects, and 83% of respondents answered that animals are subjects.

## DISCUSSION

Analyzing the obtained data, it was observed that there was no statistical significance between the gender relationship and the place where the students grew up. The trend that is present in the American, Australian and most European countries, where more female students are enrolled in the veterinary faculties, is also present in our study (Lofstedt, 2003; Tomlin et al., 2010; Porritt, 2013). There are various reasons for this trend, such as the elimination of gender discrimination, the increasing use of sedation for diagnostic procedures in large animals, and the presentation of veterinarians in the media (Slater and Slater, 2000; Smith, 2002). Also, students from urban areas prefer to work as veterinarians, compared to students from rural areas. The reason is most likely the fact that less people want to stay in the rural areas and engage in agriculture and animal husbandry. These results are correlated with the current demographic situation in our country, but also in many countries

---

around the world, because suitable substitutes for animal products have appeared that can satisfy human needs for nutrients and a healthy life.

These changes obviously affect students' decisions about what they will do after graduation. There is statistical significance between the interest of first and final year students ( $p < 0.0053^{**}$ ). Almost half of first year students (49%) want to work with social animals, and only 11% with farm animals. When it comes to final year students, the majority also want to work with social animals (36%), but students are still interested in working with farm animals (20%). The study published in Heath (2005) conducted on first year students correlates with our data, where also 49% of students wanted to work with pets. However, our study does not fully correlate with other studies, such as the study by Tomlin et al. (2010) where only 5% of the surveyed students wanted to work with farm animals, as well as with the study done by Serpell (2005) where only 28% of students wanted to work with social animals. It is important to highlight the fact that during their studies, students learn more about food hygiene and inspection work, in the final years of their studies. First year students do not know enough about these fields, and that can explain the results in which only five students wanted to work in these areas of veterinary medicine. The authors consider an unexpected result that almost the same number of first and final year students (31% and 27%) do not know what they want to do after graduation. This result is expected for first year students, but not for final year students. The nature of this problem may be different, but it gives space for reviewing the curriculum.

When it comes to making decisions and carrying out euthanasia, the majority of respondents in the first year of study believe that the veterinarian should put the interests of the animals first. They also gave similar answers to the question of whether they would euthanize an animal only if the owner asked them to do so. The majority answered that they would not (67% in the first year and 61% in the final year). It is interesting that 33% from the first year and 39% from the final year of studies would euthanize animals at the owner's request. The study by Paul and Podberscek (2000) showed that students in the first years of their studies have a higher level of empathy towards animals, so in our study we expected that a smaller percentage of first year students would obtain euthanasia only if the owner requested it. This percentage is very high, especially among students in their final year, given the fact that they have taken courses related to animal rights and ethics in veterinary medicine. It is also interesting that 33% of first year students would euthanize animals at the owner's request, although most of them (73%) believe that veterinarians and students of veterinary medicine have enough empathy for animals. In this question, there is statistical significance ( $p < 0.0053$ ) between first

---

and final year students, because a smaller number of final year students believe that there is enough empathy for animals in veterinary practice.

Statistical significance was also observed when it comes to animal rights. The majority of final year students believe that animals should have greater rights, and 15% are not sufficiently familiar with animal rights. Although the majority of first year students (51%) also answered that animals should have more rights, 45% answered that they are not sufficiently familiar with their rights. These results are expected, as students learn more about animal rights in their later years of study.

The gender of the surveyed students was also important when it comes to concern for animal rights, which correlates with other studies (de Boo and Knight, 2005; Izmirli et al., 2014). There is a statistically significant difference between the professional interests of men and women. Most women want to work with pets, and most men want to work with farm animals, which correlates with the current trend in veterinary practice (Smith, 2002; Goetz et al., 2020). There is also a statistically significant difference in the euthanasia of animals showing signs of aggressive behavior. Women are less likely to euthanize a healthy, aggressive animal compared to men. Considering that women are more concerned about the way animals are treated, this result correlates with previous data (Cornish et al., 2016). A higher level of statistical significance was observed in the issue of animal rights. Only one student in the first year and five students in the final year answered that animals should not have more rights.

## CONCLUSION

Many factors can influence students' decisions and opinions about animal rights. The results indicated their reduced interest in dealing with the farm animals, so it is necessary to encourage them in order to increase interest in this field of veterinary medicine. It is also important to review the curriculum, because many students in their final year of study still do not know in which field of veterinary medicine they want to work. This study is also important in order to improve the standards of animal care and welfare among students of veterinary medicine.

## Acknowledgment

The study was supported by the Ministry of Education, Science and Technological Development of the Republic of Serbia (Contract No. 451-03-47/2023-01/200143).

Conflict of interest statement: The authors declare that there is no conflict of interest.

---

## REFERENCES

- Cornish A. R., Caspar G. L., Collins T., Degeling C., Fawcett A., Fisher A. D., Freire R., Hazel S. J., Hood J., Johnson A. J., Lloyd J. (2016): Career preferences and opinions on animal welfare and ethics: a survey of veterinary students in Australia and New Zealand. *Journal of veterinary medical education*, 43(3):310-320.
- de Boo J., Knight A. (2005): Concepts in animal welfare: a syllabus in animal welfare science and ethics for veterinary schools. *Journal of veterinary medical education*, 32(4):451-453.
- Goetz M. L., Jones-Bitton A., Hewson J., Khosa D., Pearl D., Bakker D. J., Lyons S. T., Conlon, P. D. (2020): An examination of myers-briggs type indicator personality, gender, and career interests of ontario veterinary college students. *Journal of veterinary medical education*, 47(4):430-444.
- Hazel S. J., Signal T. D., Taylor N. (2011): Can teaching veterinary and animal-science students about animal welfare affect their attitude toward animals and human-related empathy? *Journal of veterinary medical education*, 38(1):74-83.
- Heath T. J. (2005): Recent veterinary graduates over the last five decades: the first 10 years. *Australian veterinary journal*, 83(12):746-750.
- Izmirlı S., Yigit A., Phillips C. J. C. (2014): Attitudes of Australian and Turkish students of veterinary medicine toward nonhuman animals and their careers. *Society & Animals*, 22(6):580-601.
- Levine E. D., Mills D. S., Houpt K. A. (2005): Attitudes of veterinary students at one US college toward factors relating to farm animal welfare. *Journal of Veterinary Medical Education*, 32(4):481-490.
- Lofstedt J. (2003): Gender and veterinary medicine. *The Canadian Veterinary Journal*, 44(7):533.
- Paul E. S., Podberscek A. L. (2000): Veterinary education and students' attitudes towards animal welfare. *Veterinary Record*, 146(10):269-272.
- Porritt D. (2013): Australian veterinary workforce review report. Australian Veterinary Association Ltd.
- Serpell J. A. (2005): Factors influencing veterinary students' career choices and attitudes to animals. *Journal of veterinary medical education*, 32(4):491-496.
- Slater M. R., Slater M. (2000): Women in veterinary medicine. *Journal of the American Veterinary Medical Association*, 217:472-476.
- Smith C. A. (2002): Gender and work: what veterinarians can learn from research about women, men, and work. *Journal of the American Veterinary Medical Association*, 220:1304-1311.
-



Tomlin J. L., Brodbelt D. C., May S. A. (2010): Veterinary students' understanding of a career in practice. *Veterinary record*, 166(25):781-786.

Paper received: 28.05.2023.

Paper accepted: 23.08.2023.

---