Impact of Veterinary Education on Ethical Issue Perception

Abstract

Animal welfare advocates and veterinarians are concerned with ethical animal issues. High animal production efficiency has been met thanks to biotechnological production systems. On the other hand, it is believed that these are putting welfare at risk and posing moral and ethical dilemmas, especially for veterinarians. The Lala Lajpat Rai University of Veterinary and Animal Sciences in Hisar, Haryana conducted a study to find out how scientists and students felt about animal ethical issues because there was a lack of knowledge on this topic. A total sample of 170 scientists and students were selected at random. The perception was measured with a questionnaire and was defined as an inclination toward acceptance of factory farming, animal rights, cloning, xenotransplantation, and stem cell research, either positively or negatively. The mean score of the responses indicated that the participants held an unbiased view regarding scientific progress. The average response score revealed that respondents had a neutral opinion about scientific advancements, Scientists' acceptance of animal ethics is far greater than students'. Veterinary education seems to have a major influence on perception. The assertion that cultural and traditional values have an influence is further supported by the fact that there is little variation in the respondents' opinions. It is suggested that additional research be done on the factors related to perception.

Keywords: Students, perception about animal ethics, scientists, Education

Introduction

In light of the resurgence of applied ethics in the latter half of the 20th century, the relatively new academic multidisciplinary field of bioethics has quickly come to light as a unique moral endeavor. The three primary sub-disciplines of medical ethics, animal ethics, and environmental ethics are collectively referred to by the general term "bioethics." While each subfield of bioethics has its specific focus, many problems, concepts, ethical theories, and moral considerations are shared by many subdisciplines (Boylan, 2013). This poses challenges to the examination and resolution of fundamental moral issues, including those involving abortion, xenotransplantation, cloning, stem cell research, the moral standing of animals, and

nature(Straughan,1999). Within the framework of the life sciences, bioethics addresses a particular area of human behavior about the animate (e.g., humans and animals) and inanimate (e.g., stones) natural world and the myriad issues that result from this intricate combination (Held, 1995).

Animal bioethical issues have garnered significant attention from the political and social spheres in recent times(Jones,2015) . It's evolved into a sensitive public policy problem. Even though the topic is not new, the growing concerns are new, having emerged only in the last few decades. There are regulatory guidelines on bioethical issues in many countries. Cultural variations in attitudes toward animals and how they are treated will become more noticeable to the general public as a result of more integrated fair trade and global market systems. It is reasonable to state that, at the moment, certain nations have stronger bioethical regulatory legislation and enforcement than others(Clark et. al 2016). However, the idea of bioethics, with all of its inherent complexity, is still developing. The task of defining objective and quantifiable parameters of an animal's status under specific conditions and offering solutions to new bioethical issues that society has identified has fallen to animal scientists. However many of the ideas put forth and applied to bioethical research, especially by scientists, are thought to address only a small portion of the deeply felt public concerns. Veterinarians, the farming community, and the general public are now questioning what was once considered normal and acceptable. Traditional values and attitudes are being vigorously questioned, exposed, and investigated in this new climate of bioethical issues awareness.

The present study was conducted to determine how veterinary scientists and students view animal ethics and how veterinary education affects this view.

Materials and Methods

Lala Lajpat Rai University of Veterinary and Animal Sciences (LUVAS), in Hisar, was the study's location. Every single LUVAS animal scientist from Hisar was gathered as a sample. From that group, 50 members were chosen at random by a simple lottery method. Similarly, from the list of undergraduate students in each class (I to V professional year), a sample of 120 students (100 undergraduates and 20 postgraduates) was obtained, and 20 students were selected at random using the preceding technique. In a similar vein, a total of 170 students and scientists made up the sample that was selected for the study. This study conceptualized acceptance as having a positive or negative inclination concerning factory farming, animal rights, xenotransplantation, animal cloning, and stem cell research. Veterinarian education level was regarded as an

independent variable. To find out respondents' opinions on ethical concerns pertaining to animals, a schedule was made. The respondent was asked to rate their agreement, neutrality, and disagreement on a three-point continuum. Positive and negative statements received scores of 2, 1, and 3, respectively.

Results and Discussion

As a bridge between society and animals, veterinarians have a special place. In order to improve the animals' wellbeing, they typically assist their client. The compatibility of veterinary education with animal rights is occasionally questioned, though, due to its utilitarian inclination. As an example, Martinsen and Jukes (2005) concluded that the fundamental requirement of guaranteeing the dignity and humane treatment of animals has not always been met, and is still frequently not met by veterinary education. Similar findings were made by Paul and Podberscek (2000), who found that students' perceptions of the sentience of dogs, cats, and cows are strongly correlated with the year of study they complete, with those in their later years of study rating the animals as having lower morality. It's possible that formal veterinary education significantly alters people's perspectives on animals Levine et al. (2005). As a result, the study included participants in varying phases of veterinary science education. In a similar vein, scientists were asked to name their greatest qualification.

Students in their second year of the B.V.Sc. and A.H. degree programs showed a more positive attitude toward animal rights. There was statistically significant variation across the various respondent categories (Table 1). Regarding xenotransplantation, stem cell research, factory farming, and animal cloning, M.V.Sc. candidates scored highest. There was statistically significant variation among the various categories of respondents.

Perceptions regarding xenotransplantation, stem cell research, factory farming, and animal cloning were highest among respondents pursuing master's degrees in the current study. There was statistically significant variation among the respondents' categories (Table 1). It could be that they had a stronger faith in science. The knowledge and attitudes of Turkish high school and university students toward biotechnology were examined by Usak et al. (2009), who reported similar results. They discovered that university students had significantly higher positive attitudes toward the DNA manipulation subscale than did high school students. According to research by McKendree et al. (2014), higher education is probably linked to a more positive attitude toward factory farming. The study looked into public opinion toward modern farming practices. Shirley et al. (2008) found a strong positive correlation between support for

embryonic stem cell research and education levels. Education was also linked to a higher acceptance of xenotransplantation, according to Bona et al. (2004). It is not hard to determine the likely cause. According to Capaldo (2004), the ostensibly diminished concerns for animal rights may also, in certain circumstances, be adaptations that help veterinary students endure psychological stresses that would otherwise be intolerable as a result of being forced to harm sentient creatures when there isn't a compelling need to do so. In preclinical courses like anatomy, physiology, biochemistry, and pharmacology, veterinary students are often required to injure and kill animals as part of their training (Knight, 1999).

The M.V.Sc. students in this study may have been more inclined toward these cutting-edge technologies because they planned to pursue careers in science. In contrast, scientists displayed a lower inclination than students, which is most likely a result of waning beliefs and motivations.

Conclusion

In summary, the results indicate that veterinary education has an impact on people's perceptions of animal ethics. The fact that opinions among respondents did not differ significantly further suggests the influence of cultural and traditional values. To gain a deeper understanding of the factors, research on recently emerging ethical issues is required.

Table 1: Classification of dependent variable scores of respondents of different educational qualification groups

Variable	**Category (No. of respondent)**	**Attitude toward the animal right**				**F value**
		Less Favourable (28-65) (No. of respondent) Mean ± SD	**Favourable (66-102) (No. of respondent) Mean ± SD**	**Strongly favourable) (103-140) (No. of respondent) Mean ± SD**	**Mean ± SD**	
Educational qualification	B.V.Sc 1 yr (20)	-	82.75±6.26(16)	106.50±4.73(4)	87.50±11.38	**2.74***
	B.V.Sc 2 yr(20)	-	90.47±6.65(17)	109±3.46(3)	93.25±9.20	
	B.V.Sc 3 yr(20)	64±0(1)	89.82±7.95(17)	106.50±4.95(2)	90.20±10.90	
	B.V.Sc 4 yr(20)	62.50±3.54(2)	87±10.17(13)	104.80±1.48(5)	89±14.45	

	B.V.Sc 5 yr(20)	63±1.41(2)	89.80±9.53(15)	111.33±5.86(3)	90.35±14.80	
	M.V.Sc(30)	-	81.04±9.04(27)	109.67±3.21(3)	83.90±12.26	
	Ph.D(40)	58.67±4.63(6)	82.39±8.82(31)	116.67±3.51(3)	81.40±15.47	
Variable	**Category (No.** of **respondent)**	**Perception about Xenotransplantation**				**F value**
		Less favourable(29-48) (No. of **respondent)**	**Favourable(49-67) (No.** of **respondent)**	**Strongly favourable(68-87) (No.** of **respondent)**	**Mean ± SD**	
Educational qualification	B.V.Sc 1 yr (20)	45±0(1)	55.93±3.15(14)	72±2.65(5)	59.40±8.36	**3.97****
	B.V.Sc 2 yr(20)	39±0(1)	58.44±3.48(16)	70±1.73(3)	59.20±7.09	
	B.V.Sc 3 yr(20)	38±4.38(6)	58.80±3.16(10)	72.50±1.29(4)	55.30±13.16	
	B.V.Sc 4 yr(20)	36±0(1)	59.40±4.67(10)	71±3.35(9)	63.45±9.51	
	B.V.Sc 5 yr(20)	-	60.85±5.32(13)	69.57±1.81(7)	63.90±6.09	
	M.V.Sc(30)	47±0(1)	62.08±4.64(12)	72.53±3.61(17)	67.50±7.54	
	Ph.D(40)	37.13±5(8)	59.11±5.41(19)	72.77±2.98(13)	59.15±13.49	
Variable	**Category (No.** of **respondent)**	**Perception aboutstem cell research**				**F value**
		Less favourable(27-45) (No. of **respondent)**	**Favourable (46-63) (No.** of **respondent)**	**Strongly favourable (64-81) (No.** of **respondent)**	**Mean±SD**	
Educational qualification	B.V.Sc 1 yr (20)	-	55.33±4.54(12)	68.87±3.18(8)	60.75±7.87	**9.75****
	B.V.Sc 2 yr(20)	-	56.65±3.22(20)	-	56.65±3.22	
	B.V.Sc 3 yr(20)	-	58.60±4.01(10)	68.30±2.67(10)	63.45±5.98	
	B.V.Sc 4	-	56.69±4.13(13	69.29±3.20(7)	61.10±7.21	

	yr(20)		)			
	B.V.Sc 5 yr(20)	-	56.60±4.60(15)	65.20±1.64(5)	58.75±5.54	
	M.V.Sc(30)	-	62±1.73(3)	68.56±2.76(27)	67.90±3.33	
	Ph.D(40)	-	59.22±3.25(23)	71±3.98(17)	64.95±6.87	
Variable	**Category (No.** of **respondent)**	**Perception about factory farming**				**F value**
		Less favourable(28-46) (No. of **respondent)**	**Favourable (47-64) (No.** of **respondent)**	**Strongly favourable (65-84) (No.** of **respondent)**	**Mean±SD**	
Educational qualification	B.V.Sc 1 yr (20)	46±0(2)	57.75±1.60(12)	67.67±2.34(6)	59.55±6.72	**2.36***
	B.V.Sc 2 yr(20)	42±0(1)	58.28±3.32(18)	66±0(1)	57.85±5.17	
	B.V.Sc 3 yr(20)	42.50±0.71(2)	55.36±3.86(14)	67.75±1.26(4)	56.55±7.66	
	B.V.Sc 4 yr(20)	-	56.63±4.50(16)	67±1.83(4)	58.70±5.89	
	B.V.Sc 5 yr(20)	-	59.63±2.83(16)	68±3.58(4)	61.30±4.38	
	M.V.Sc(30)	-	58.65±4.73(20)	67.60±2.63(10)	61.63±5.93	
	Ph.D(40)	44±0(1)	58.97±3.60(29)	68.40±2.12(10)	60.95±5.91	
Variable	**Category (No.** of **respondent)**	**Perception about animal cloning**				**F value**
		Less favorable (29-48) Mean ± SD (No. of **respondent)**	**Favorable (49-67) Mean ± SD (No.** of **respondent)**	**Strongly favorable (68-87) Mean ± SD (No.** of **respondent**	**Mean±SD**	
Educational qualificatio	B.V.Sc 1 yr (20)	49.50±0.71(2)	58.07±5.98(14)	73.75±2.63(4)	60.35±8.92	**3.57***
	B.V.Sc 2	-	60.26±5.42(19	73±0(1)	60.90±6	

n	yr(20)		)			
	B.V.Sc 3 yr(20)	42.83±1.33(6)	61±3.84(14)	-	55.55±9.14	
	B.V.Sc 4 yr(20)	36±0(1)	60.81±3.94(16)	78.67±6.81(3)	62.25±9.88	
	B.V.Sc 5 yr(20)	-	61.20±5.09(20)	-	61.20±5.09	
	M.V.Sc(30)	47.50±3.54(2)	62.50±4.87(16)	75.33±3.85(12)	66.63±9.18	
	Ph.D(40)	44.43±3.60(7)	61.45±5.74(29)	76±2.94(4)	59.92±9.88	

References

Bona, M. D., Canova, D., Rumiati, R., Russo, F. P., Ermani, M., Ancona, E., ... & Burra, P. (2004). Understanding of and attitudes to xenotransplantation: a survey among Italian university students. Xenotransplantation, 11(2), 133-140.

Boylan, M. (2013).Medical Ethics, 2nded., Malden, MA and Oxford: Wiley-Blackwell

Clark, B., Stewart, G. B., Panzone, L. A., Kyriazakis, I., &Frewer, L. J. (2016). A systematic review of public attitudes, perceptions and behaviours towards production diseases associated with farm animal welfare. Journal of Agricultural and Environmental Ethics, 29(3), 455-478.

Capaldo, T. (2004). The psychological effects on students of using animals in ways that they see as ethically, morally or religiously wrong. ATLA-NOTTINGHAM-, 32, 525-532.

Held, V. (1995).Justice and Care: Essential Readings in Feminist Ethics. Boulder and Oxford: Westview Press

Jones, R. C. (2015). Animal rights is a social justice issue. Contemporary Justice Review, 18(4), 467-482.

KNIGHT, A. (1999). Alternatives to harmful animal use in tertiary education. ATLA. Alternatives to laboratory animals, 27(6), 967-974.

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.

Martinsen, S., & Jukes, N. (2005). Towards a humane veterinary education. Journal of Veterinary Medical Education, 32(4), 454-460

McKendree, M. G. S., Croney, C. C., & Widmar, N. O. (2014). Effects of demographic factors and information sources on United States consumer perceptions of animal welfare. Journal of Animal science, 92(7), 3161-3173.

Paul, E. S., &Podberscek, A. L. (2000). Veterinary education and students' attitudes towards animal welfare. The Veterinary Record, 146(10), 269-272.

Straughan, R. (1999). Ethics, morality and animal biotechnology. Biotechnology, 1(4).

Shirley , Brossard, D., & Scheufele, D. A. (2008). Effects of value predispositions, mass media use, and knowledge on public attitudes toward embryonic stem cell research. Inter. national Journal of Public Opinion Research, 20(2), 171-192.

Usak, M., Erdogan, M., Prokop, P., & Ozel, M. (2009). High school and university students' knowledge and attitudes regarding biotechnology. Biochemistry and Molecular Biology Education, 37(2), 123-130.