



ATTITUDES TOWARDS ANIMALS AND THEIR WELFARE AMONG ITALIAN VETERINARY STUDENTS

Chiara Mariti (1), Federica Pirrone (2), Angelo Gazzano (1), Mariangela Albertini (2), Claudio Sighieri (1), Silvana Diverio (3)

(1) Università degli Studi di Pisa, Dipartimento di Scienze Veterinarie. (2) Università degli Studi di Milano, Dipartimento di Medicina Veterinaria. (3) Università degli Studi di Perugia, Dipartimento di Medicina Veterinaria

Human attitudes towards animals are becoming of increasing importance in the areas of conservation and welfare. This is particularly true among veterinarians, who are a source of information about animal care for owners. The aim of this study was to investigate the attitude towards non-human animals and their welfare in a sample of Italian veterinary students. A questionnaire eliciting information on respondents' demographics, including the Animal Attitude Scale (AAS) published by Herzog et al. [1] was administered to students of the Veterinary Medicine Course in three Italian Universities. In total 878 questionnaires were completed, 173.6 ± 60.1 per year; female students (75.1%) were overrepresented in all years of the course. Data were analysed using non parametric tests (IBM SPSS 25.0) and a value of $p < 0.05$ was deemed statistically significant. Results suggested that although the attitude towards animals is generally quite positive among veterinary students (mean score = 3.58 ± 1.31 SE), it becomes exponentially more negative over time (R^2 of 0.803, fitting equation $Y = 66,666e^{-0,0125x}$), the fifth year presenting the lowest total score (TS) of AAS (62.53 ± 0.70 , Kruskal-Wallis test, $p < 0.05$). Geographical location also influenced students' attitude towards animals, as students coming from the Northern part of Italy and attending a Northern University showed a lower TS than students from either the South or Centre of Italy (Kruskal-Wallis test, $p < 0.05$). In addition, females were more supportive of animal welfare than males (Female TS = 66.43 ± 0.28 vs Male TS = 58.53 ± 0.25 , Mann-Whitney U test, $p < 0.05$). Considering the 4 subscales of AAS suggested by Gazzano et al. [3], respondents were significantly less favourable to human moral dominance (TS = 80.72 ± 0.50) and to negative attitudes to dogs (TS = 72.65 ± 0.59) than to the use of animals in research (TS = 45.73 ± 0.71) and food of animal origin (TS = 50.30 ± 0.37). However, students at the beginning of their academic career showed lower levels of support for animal research, as did females and participants from the Centre and South of Italy (Kruskal-Wallis Test, $p < 0.05$). The effect of gender was also detected within the other three subscales, with females showing significantly more positive attitudes towards animals than males. The differences in attitudes witnessed in this study expand what observed in previous research; specifically, gender and prior experiences influence both veterinary students [2] and professionals [3] in their attitude towards nonhuman animals. Overall, our findings suggest that other variables, such as the geographical location and year of the university curriculum, may also act as important influencing factors among veterinary students, who generally have positive attitudes towards animals. The veterinary curricula should take into consideration all this emerging knowledge, covering topics that allow future veterinarians to have a more positive attitude towards non-human animals and their welfare.

[1] Herzog et al. Gender, sex role orientation, and attitudes toward animals. *Anthrozoös* 4:184-191, 1990. [2] Serpell JA. Factors influencing veterinary students' career choices and attitudes to animals. *Journal of Veterinary Medical Education* 32:491-496, 2005. [3] Gazzano et al. Attitude toward nonhuman animals and their welfare: Do behaviorists differ from other veterinarians? *Journal of Veterinary Behavior: Clinical Applications and Research*, 24:56-61, 2018.