RESEARCH ARTICLE Agricultural Science Digest, Volume 44 Issue 3: 571-579 (June 2024)

Gender Differences in Moral Distress and Ethical Conflict: A Survey of Indian Veterinary Practitioners

Davinder Singh[1], Jyoti Shunthwal[1], G.R. Gowane[2], Sujoy Khanna[3]

10.18805/ag.D-6095

ABSTRACT

Background: Gender differences are steadily increasing in the moral distress and ethical conflict of practicing veterinarians internationally and little research has been done to identify the root causes of these problems. Gender differences in ethical conflict and resultant moral distress may lead to decreased job satisfaction in one specific gender.

Methods: A mixed-methods sequential explanatory methodology was used to conduct this study on randomly selected Indian veterinary practitioners. The survey was conducted between April 2022 and March 2023.

Result: The study found that only 426 veterinarians participated in the survey, with responses analyzed for demographic characteristics and training of respondents, causes of ethical conflict and moral distress levels and coping methods. The majority of respondents were male and worked in State Services. Female respondents reported less conflict resolution training and less training on self-care. The causes of ethical conflict varied, with some respondents reporting frequent disagreements with animal owners regarding their preferred course of treatment. Coping mechanisms included discussion with colleagues and seniors, seeking professional help and discussing with a partner or friend.

Key words: Ethical conflict, Gender differences, Job satisfaction, Moral distress, Veterinarian.

INTRODUCTION

Veterinarians have a responsibility of representing the silent voices of the healthy animals as well as those nearing the end of their lives (Fine and Mackintosh, 2016). They are regarded as “high achievers” in society, primarily due to the rigorous academic requirements, personality traits of perfectionism, neuroticism and conscientiousness (Allister, 2014).Veterinarians in their line of duty have to daily face complex web of ethical dilemmas, akin to navigating a “moral maze” (Hobson-West and Jutel, 2020). Apart from these stress factors, there is a growing recognition of the stress caused while trying to maintain the ethical aspect of the profession to promote an optimal approach. Instances of this include acknowledging the potential consequences on public health when prescribing antimicrobials excessively in animal production (Littmann and Viens, 2015), assessing the fitness for transport of acutely injured animals (Cullinane *et al.*, 2012), making decisions regarding euthanasia and excessive treatment of companion animals (Yeates and Main, 2011), reporting incidences of animal abuse (Benetato *et al.*, 2011) while caring for their health and welfare.

Ethics in the veterinary profession encompasses principles and beliefs that guide individuals’ perceptions of right and wrong, good and bad, fair and unfair and just and unjust as a fundamental aspect of professional behavior (Magalhães-Sant’Ana *et al.*, 2015). Moral distress and ethical conflict are two related but distinct concepts experienced by veterinary practitioners (Lamiani *et al.*, 2017). Moral distress is a phenomenon or a psychological response that arises “when one has knowledge regarding what is the right thing to do, but external barriers or institutional constraints make it nearly impossible to pursue the right course of action” leading to a moral conflict, restraint, or uncertainty (Fourie, 2015). It was originally discussed for nursing professionals, but recently the concept of moral distress has evolved and been explored in various healthcare professionals, including veterinary practitioners (Corley, 2002). Veterinarians very often find themselves in situations involving conflicts of interest. For example, there are times where providing best patient care will conflict with what is best for the organization, the patient’s owners or other patients (Moses *et al.*, 2018). Ethical conflicts generally occur when there is a clash of values or principles guiding professional conduct (Hilliard *et al.*, 2007). These conflicts in veterinary practitioners can arise from a variety of situations, such as animal welfare concerns, financial

[1]Haryana Pashu Vigyan Kendra, Mahendergarh, Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar-125 004, Haryana, India.
[2]Division of Animal Genetics and Breeding, ICAR-National Dairy Research Institute, Karnal-132 001, Haryana, India.
[3]Directorate of Extension Education, Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar-125 004, Haryana, India.

Corresponding Author: Sujoy Khanna, Directorate of Extension Education, Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar-125 004, Haryana, India.
Email: joykhanna20@gmail.com

How to cite this article: Singh, D., Shunthwal, J., Gowane, G.R. and Khanna, S. (2024). Gender Differences in Moral Distress and Ethical Conflict: A Survey of Indian Veterinary Practitioners. Agricultural Science Digest. 44(3): 571-579. doi: 10.18805/ag.D-6095.

Submitted: 02-02-2024 **Accepted:** 02-05-2024 **Online:** 21-06-2024

considerations, conflicts of interest, or disagreements with colleagues or clients (Kipperman *et al.*, 2018). Veterinarians frequently have to perform euthanasia, which is known to place significant emotional strain on the practitioners (Hatch *et al.*, 2011).

In this research paper we try to find an answer to the question: Do significant gender differences exist in the moral distress and ethical conflict of practicing veterinarians?

MATERIALS AND METHODS

This study utilized a mixed methods sequential explanatory methodology, where researchers employed both quantitative and qualitative research methods in a sequential manner. In this case, the initial phase involved quantitative data collection through an online survey. The survey was administered to randomly selected Indian veterinary practitioners through an online survey using a secure online google form to explore their moral distress and ethical conflict levels and to determine whether gender differences exist in their mean scores.

Survey design

The survey study was conducted on the World Veterinary Day- 2022 theme of "Strengthening Veterinary Resistance". An online based questionnaire was developed consisting 2 sections and 27 questions and took approximately 20 minutes to complete the questionnaire. In the first section, participants were asked personal details *viz.* name, gender, nature of their job, experience, training received and support received, etc. Following this, they were asked to answer about moral distress and ethical conflict, coping mechanisms, etc. In the second session, a set of 24 questions was administered, focusing on ethical conflict and moral distress. These questions encompassed topics such as conflicting opinions with pet owners, ethical dilemmas encountered, personal moral conduct in different situations and various coping strategies employed to manage ethical stress. The entire survey questionnaire was contained in an URL link accessible online and completely explaining its purpose. The questionnaire was initially pretested with 10 veterinary professionals to identify any poorly worded or repetitive questions and responses. Additionally, assessment for the questionnaire's flow, relevance and overall acceptability was also done. Following the revisions based on the pretesting feedback, it was then sent to 20 selected respondents for piloting. Minor corrections were made and the questionnaire received from pilot participants was finalized for circulation.

Respondents irrespective of their age, who are currently or were formerly practicing veterinary clinical services in rural as well as urban areas of India, were invited to take part in a 20-minute online questionnaire. An email was sent to a total 1000 randomly selected veterinarians having equal numbers of male and female candidates, consisting of a message regarding the aim and purpose of the survey and a link within the email. No incentives were offered and respondents were invited to participate on a voluntary basis. Veterinary practitioners who chose to participate clicked on the link in their email that redirected them to Google forms online survey with 27 questions with drop-down menu options for answers and for submitting the responses of the survey they all must have been answered.

Study area

The developed questionnaire was administered through online mode to the veterinary practitioner respondents belonging to India. Participation was open to all geographic locations of India for the period April, 2022 to March 2023. The data was collected through online mode from the participants and results were tabulated into Excel Sheets from the Google Sheet.

Sampling procedure

To meet the inclusion criteria, respondents were required to be a veterinary graduate or higher, animal health specialist and a licensed veterinary practitioner registered with their respective State Councils' or Veterinary Council of India (VCI). The representative sample of diverse Indian veterinary practitioners representing different regions, types of practice and levels of experience were selected through random sampling. Prior to the commencement of the online survey, the study was explained to the participants and the anonymity and confidentiality of the participants and their answers confirmed through a survey disclaimer. A sample size of 1000 individuals (500 of each gender) for the survey was planned. This was done using a random number generator from the list of registered Indian Veterinary Practitioners and a small number of the veterinary practicing staff of the parent institute (LUVAS, Hisar).

Questionnaire design

The landing page of the survey was a participant information statement, providing detailed information about the purpose of the study, the estimated completion time (20 minutes), information about data storage and feedback and assurance of the confidentiality and anonymity of responses. Submission of responses by the respondents indicated consent to participate and stored data was accessible only by the study team.

The objective of this questionnaire survey study was to accomplish the following: examining the occurrence and intensity of moral distress and ethical conflict among veterinary practitioners in India, investigate potential gender disparities in the encounter of moral distress and ethical conflict among veterinary practitioners, ascertain the coping mechanism employed by veterinary practitioners to address moral distress and ethical conflict, evaluate the effectiveness of training and to explore the need for additional educational support regarding their ethical issues.

The questionnaire consisted of closed questions on: the details of the respondents (03 questions); details about the demographics of respondents (04 questions) and questions related to the ethical conflict and moral distress

(20 questions). The questions were available to the respondents in English language only and their answers were recorded online.

Data management and statistical analysis

The responses on the questionnaire sheet were transferred onto a Microsoft EXCEL 2010 spreadsheet and made compatible for subsequent analysis using the SPSS 25.0 (IBM Corporation, 2017) software. Five percent of the questionnaires were checked to detect data errors; no errors were observed. The data were classified as responses by 'male' versus 'female' responders. The responses to each question were further coded numerically and their frequencies were calculated and transformed to percent values. Further the data were subjected to Chi-square analysis. The rationale for choosing the Chi-square analysis as the statistical method for testing the null hypothesis of gender differences in work stress for veterinarians was due to the fact that the data were obtained as frequency of responses per class, which were then transformed to percent scale and the test suitable for such data is Chi-square. The 2 x 'N' contingency tables created for each question. The 2 classes pertained to 'male' versus 'female' sex and 'N' corresponded for the type of responses received for each question. Construction of 2 x 'N' contingency tables was completely dependent on the number of variable responses. Chi-square test of significance was assessed at 5% and 1% level of significance. For every test performed, corresponding Chi-square statistics, likelihood ratio and 'P' value were recorded.

RESULTS AND DISCUSSION

In total, 426 respondents completed the survey and pressed the "Submit" button at the end of the survey indicating their consent and their participation. Therefore, responses of 426 respondents were analyzed. In order to submit the responses, it was made mandatory to attempt all the questions. So, all the respondents completed all the questions and kept the cumulative proportions of all the questions to 100%.

Characteristics, demographics and relevant training of respondents

The majority of those who responded were males [(69.01%, n=294) *vs.* females (30.99%, n=132)] and mainly worked in State Veterinary Services [(62.93%, n=185, males) *vs.* (53.03%, n=70, females)]. Male and female respondents who were employed outside of State Veterinary Services listed their nature of job as State University/ICAR Job (At Veterinary Clinical Complex/Farms, etc.) [male (9.52%, n=28) *vs.* female (8.33%, n=11)], State University/ ICAR Job (Non-Clinical) [male (7.48%, n=22) *vs.* female (12.12%, n=16], Private practitioner (Large/Small Animals) [male (18.37%, n=54) *vs.* female (23.48%, n=31)] and Fresh Graduate [male (1.7%, n=5) *vs.* female (3.03%, n=4)] (Table 1).

When questioned about the extent of instruction or training they had received in their entire career regarding the resolution of disagreements pertaining to the optimal care for their patients, more female respondents [(33.33%, n=44) *vs.* male respondents (28.57%, n=84)] reported they had received no conflict resolution training; whereas more male respondents [(48.64%, n=143) *vs.* female respondents (33.33%, n=44)] reported they had received more than 5 hours of training. When questioned about the extent of education or training hours received on the topic of self-care, majority of female respondents [(71.97%, n=95) *vs.* male respondents (42.52%, n=125)] reported they had received no such training; whereas more male respondents [(30.61%, n=90) *vs.* female respondents (9.85%, n=13)] reported more than 5 hours of training (Table 2).

Causes of ethical conflict

When inquired about the frequency of disagreements with animal owners regarding your preferred course of treatment, 9.52% (n=28) males reported "never" as compared to 3.79% (n=5) female respondents; and 19.70% (n=26) females reported "often" as compared to 11.56% (n=34) males. In these situations, discussion with colleagues followed by discussion with seniors was a way to sort out conflict. However, significantly (P<0.01) higher percentage of male veterinarians (11.22%, n=33) did nothing as compared to females (1.52%, n=2) to solve the issue; and more females discussed the issue with superior officer [(37.88%, n=50) *vs.* male respondents (27.89%, n=82)] as well as with their colleagues [(51.52%, n=68) vs. male respondents (47.62%, n=140)] (Table 3).

On being asked about the frequency of requests to perform a task that seems incorrect or inappropriate in the context of their clinical practice, 30.30% (n=40) females reported "never" as compared to 27.55% (n=81) male respondents; and 7.58% (n=10) females reported "often" as compared to 5.44% (n=16) males. Although more female

Table 1: Demographics of the respondents detailing the nature of their job and sex. Number (%)

Row labels	Female	Male	Total
State Veterinary Services (Field job)	70 (53.03%)	185 (62.93%)	255 (59.86%)
State University/ICAR Job (At Veterinary Clinical Complex/Farms, *etc.*)	11 (8.33%)	28 (9.52%)	39 (9.15%)
State University/ ICAR Job (Non-Clinical)	16 (12.12%)	22 (7.48%)	38 (8.92%)
Private practitioner (Large/Small Animals)	31 (23.48%)	54 (18.37%)	85 (19.95%)
Fresh Graduate	4 (3.03%)	5 (1.7%)	9 (2.11%)
Total	132 (30.99%)	294 (69.01%)	426 (100%)

Table 2: Survey responses of the respondents about instruction or trainings received. Number (%)

Row labels	Female	Male	Total	Pearson Chi square	Likelihood ratio	P value
Throughout your entire career as a veterinarian, how many hours of instruction or training have you received regarding resolution of disagreements about the most optimal care for patients?						
None	44 (33.33%)	84 (28.57%)	128 (30.05%)	9.437	9.513	0.009
1–5 hours	44 (33.33%)	67 (22.79%)	111 (26.06%)			
More than 5 hours	44 (33.33%)	143 (48.64%)	187 (43.9%)			
What was the number of instruction or training hours you received on self-care?						
None	95 (71.97%)	125 (42.52%)	220 (51.64%)	34.39	36.56	0.00
1–5 hours	24 (18.18%)	79 (26.87%)	103 (24.18%)			
More than 5	13 (9.85%)	90 (30.61%)	103 (24.18%)			

respondents said they "never complied" [(45.45%, n=60) *vs.* male respondents (39.46%, n=116)] and more male respondents said "rarely complied" [(30.27%, n=89) *vs.* female respondents (25.00%, n=33)] with these requests. Both male and female respondents stated similar responses to our question about "the authority to refuse these requests" as well as "to refuse to provide a treatment that you feel would not produce desired outcome" (Table 3).

Moral distress levels and coping methods

When faced with such scenarios where improper requests were made, a higher percentage of male respondents [(12.59%, n=37) *vs.* female respondents (6.06%, n=8)] indicated that they did not take any action (Table 3). A higher percentage of female respondents [(28.03%, n=37) *vs.* male respondents (16.33%, n=48)] opted to "discuss with partner or friend" or "seek professional help" [(21.21%, n=28) *vs.* male respondents (16.67%, n=49)]. On the other hand, a greater number of male respondents [(47.62%, n=140) vs. female respondents (38.64%, n=51)] chose to "discuss with a colleague", (P=0.01).

When asked about their conflicting emotions or distress when an animal owner declines to comply with their treatment recommendations, a higher percentage of male respondents [(11.56%, n=34) *vs.* female respondents (6.82%, n=9)] replied with "Never" or "Rarely" [(25.17%, n=74) *vs.* female respondents (22.73%, n=30)], (P=0.06). The stress levels escalated when the animal owner disregarded the advice given by the veterinarian. Although the majority of respondents experienced mild to moderate distress, a notable difference was observed between females (17.42%, n=23) and males (6.12%, n=18) in terms of significantly more severe distress (P<0.01). A higher percentage of male respondents [(16.33%, n=48) vs. female respondents (9.09%, n=12)] indicated that they experienced "No stress". In order to cope with these feelings, the results were similar to responses recorded while dealing with the situations about wrong requests. Females coped up with stress mostly by talking with partners or friends, which was significantly higher (P<0.01) as compared to males [40.91% (n=54) *vs.* 20.07% (n=59)]. Males were more robust to cope up with stress (P<0.01), as 17.69% (n=52) males did nothing as compared to only 5.3% (n=7) females, who did nothing to cope up with stress.

When inquired about the frequency of feeling distressed or anxious about their work, a greater percentage of male respondents reported "Never" [(13.95%, n=41) *vs.* female respondents (7.58%, n=10)] or "Rarely" [(23.47%, n=69) *vs.* female respondents (12.12%, n=16)] and more percentage of female respondents reported "Always" [(6.82%, n=9) *vs.* male respondents (3.06%, n=9)] or "Often" [(27.27%, n=36) *vs.* male respondents (15.31%, n=45)]. Both male and female respondents stated their responses to our question about "frequency of disagreements with other veterinarians in jointly managing a case" as well as "distress caused by this disagreement". However, female respondents find disagreements with other veterinarians more distressing [(29.55%, n=39) *vs.* male respondents (22.11%, n=65)] while male respondents find it more distressing [(58.16%, n=171) *vs.* female respondents (53.03%, n=70)] than when you disagree with an animal owner? (Table 3).

25.51% (n=75) male respondents said their ability to feel empathy or compassion towards their patients had decreased over time as compared to 22.73% (n=30) female respondents; and 11.90% (n=35) male respondents said that their level of compassion towards animal owners had diminished with time as compared to 8.33% (n=11) female respondents. 47.28% (n=139) male respondents conveyed that they perceive themselves as prioritizing the demands of animal owners over their patients as compared to 43.94% (n=58) female respondents; and at the same time "Never" felt conflicted about this stress [(33.67%, n=99) *vs.* male respondents (28.03%, n=37)] (Table 3).

The aims of this study were two fold, firstly to determine the frequency of moral distress arising from ethical conflict in Indian Veterinarians and secondly to determine the relationship of the frequencies to the demographic variables of gender of veterinary practitioners. This paper reports the results of a large-scale online survey of all registered veterinarians and demonstrates that veterinarians have higher mild to moderate levels of distress on conflict with the animal owner regarding best interest of their patient; and majority of them felt anxious about their work. Hatch *et al.* (2011) reported similar findings in Australian Veterinarians having higher levels of psychological distress including depression, anxiety, stress and burnout. Similarly, veterinary surgeons of the United Kingdom regularly face ethical

Table 3: Survey responses of the respondents about ethical conflict and moral distress. Number (%)

Row labels	Female	Male	Total	Pearson Chi square	Likelihood ratio	P value
How frequently have you encountered disagreements with animal owners about your preferred course of treatment?						
Never	5 (3.79%)	28 (9.52%)	33 (7.75%)	9.01	9.33	0.061
Rarely	34 (25.76%)	87 (29.59%)	121 (28.4%)			
Sometimes	63 (47.73%)	133 (45.24%)	196 (46.01%)			
Often	26 (19.7%)	34 (11.56%)	60 (14.08%)			
Always	4 (3.03%)	12 (4.08%)	16 (3.76%)			
What actions, if any, as mentioned below have you taken in such circumstances?						
Nothing	2 (1.52%)	33 (11.22%)	35 (8.22%)	14.99	18.33	0.002
Discussed with colleague	68 (51.52%)	140 (47.62%)	208 (48.83%)			
Discussed with superior officer	50 (37.88%)	82 (27.89%)	132 (30.99%)			
Other (please specify)	12 (9.09%)	39 (13.27%)	51 (11.97%)			
How frequently have you been requested to carry out a task in your clinical practice that appears to be incorrect or inappropriate?						
Never	40 (30.30%)	81 (27.55%)	121 (28.4%)	1.57	1.55	0.82
Rarely	43 (32.58%)	97 (32.99%)	140 (32.86%)			
Sometimes	37 (28.03%)	96 (32.65%)	133 (31.22%)			
Often	10 (7.58%)	16 (5.44%)	26 (6.1%)			
Always	2 (1.52%)	4 (1.36%)	6 (1.41%)			
How frequently have you acceded to such requests?						
Never	60 (45.45%)	116 (39.46%)	176 (41.31%)	3.98	3.87	0.41
Rarely	33 (25%)	89 (30.27%)	122 (28.64%)			
Sometimes	29 (21.97%)	75 (25.51%)	104 (24.41%)			
Often	5 (3.79%)	9 (3.06%)	14 (3.29%)			
Always	5 (3.79%)	5 (1.7%)	10 (2.35%)			
Did you believe that you had the authority to refuse?						
No	22 (16.67%)	53 (18.03%)	75 (17.61%)	0.12	0.12	0.73
Yes	110 (83.33%)	241 (81.97%)	351 (82.39%)			
Have you taken any measures to deal with such situations and if so, what were they?						
Done nothing	8 (6.06%)	37 (12.59%)	45 (10.56%)	12.68	12.74	0.01
Discussed with partner or friend	37 (28.03%)	48 (16.33%)	85 (19.95%)			
Discussed with colleague	51 (38.64%)	140 (47.62%)	191 (44.84%)			
Sought professional help	28 (21.21%)	49 (16.67%)	77 (18.08%)			
Other	8 (6.06%)	20 (6.8%)	28 (6.57%)			
Have you ever declined to administer a treatment that you believed would not yield the desired outcome?						
Yes	87 (65.91%)	188 (63.95%)	275 (64.55%)	0.15	0.15	0.70
No	45 (34.09%)	106 (36.05%)	151 (35.45%)			
How frequently do you experience conflicting emotions or distress when an animal owner declines to comply with your professional judgment regarding the best course of treatment?						
Never	9 (6.82%)	34 (11.56%)	43 (10.09%)	8.94	8.82	0.06
Rarely	30 (22.73%)	74 (25.17%)	104 (24.41%)			
Sometimes	63 (47.73%)	143 (48.64%)	206 (48.36%)			
Often	28 (21.21%)	34 (11.56%)	62 (14.55%)			
Always	2 (1.52%)	9 (3.06%)	11 (2.58%)			
At its worst, how much emotional distress has this situation caused you?						
None	12 (9.09%)	48 (16.33%)	60 (14.08%)	15.85	15.07	0.00
Mild distress	59 (44.7%)	133 (45.24%)	192 (45.07%)			
Moderate distress	38 (28.79%)	95 (32.31%)	133 (31.22%)			
Severe distress	23 (17.42%)	18 (6.12%)	41 (9.62%)			

Table 3: Continue...

Table 3: Continue...

What strategies have you chosen to employ in order to manage these emotions?						
Done nothing	7 (5.3%)	52 (17.69%)	59 (13.85%)	26.15	27.04	0.00
Talked with partner or friend	54 (40.91%)	59 (20.07%)	113 (26.53%)			
Discussed with colleague	54 (40.91%)	139 (47.28%)	193 (45.31%)			
Sought professional help	11 (8.33%)	27 (9.18%)	38 (8.92%)			
Other	6 (4.55%)	17 (5.78%)	23 (5.4%)			
How frequently have you experienced feelings of distress or anxiety related to your work?						
Never	10 (7.58%)	41 (13.95%)	51 (11.97%)	18.95	19.15	0.00
Rarely	16 (12.12%)	69 (23.47%)	85 (19.95%)			
Sometimes	61 (46.21%)	130 (44.22%)	191 (44.84%)			
Often	36 (27.27%)	45 (15.31%)	81 (19.01%)			
Always	9 (6.82%)	9 (3.06%)	18 (4.23%)			
How frequently you had disagreements with other veterinarians in jointly managing a case?						
Never	21 (15.91%)	35 (11.9%)	56 (13.15%)	5.22	5.30	0.27
Rarely	56 (42.42%)	103 (35.03%)	159 (37.32%)			
Sometimes	48 (36.36%)	137 (46.6%)	185 (43.43%)			
Often	6 (4.55%)	14 (4.76%)	20 (4.69%)			
Always	1 (0.76%)	5 (1.7%)	6 (1.41%)			
At its worst, how much emotional distress has this situation caused you?						
None	33 (25%)	87 (29.59%)	120 (28.17%)	8.15	7.64	0.04
Mild distress	70 (53.03%)	170 (57.82%)	240 (56.34%)			
Moderate distress	26 (19.7%)	36 (12.24%)	62 (14.55%)			
Severe distress	3 (2.27%)	1 (0.34%)	4 (0.94%)			
Do disagreements with fellow veterinarians cause you more or less distress compared to when you have a disagreement with an animal owner?						
More distressing	39 (29.55%)	65 (22.11%)	104 (24.41%)	2.74	2.68	0.25
Less distressing	70 (53.03%)	171 (58.16%)	241 (56.57%)			
About the same	23 (17.42%)	58 (19.73%)	81 (19.01%)			
How frequently have you encountered disagreements with other non-veterinarian members of your staff regarding the optimal course of action for a clinical case?						
Never	32 (24.24%)	80 (27.21%)	112 (26.29%)	1.47	1.47	0.83
Rarely	40 (30.3%)	83 (28.23%)	123 (28.87%)			
Sometimes	44 (33.33%)	94 (31.97%)	138 (32.39%)			
Often	9 (6.82%)	26 (8.84%)	35 (8.22%)			
Always	7 (5.3%)	11 (3.74%)	18 (4.23%)			
Do you believe that your capacity for empathy or compassion towards your animal patients has diminished over the duration of your veterinary practice?						
Yes	30 (22.73%)	75 (25.51%)	105 (24.65%)	1.99	1.98	0.37
Sometimes	44 (33.33%)	111 (37.76%)	155 (36.38%)			
No	58 (43.94%)	108 (36.73%)	166 (38.97%)			
Do you feel that your compassion towards animal owners has decreased over the duration of your veterinary career?						
Yes	11 (8.33%)	35 (11.9%)	46 (10.8%)	1.85	1.90	0.40
Sometimes	48 (36.36%)	114 (38.78%)	162 (38.03%)			
No	73 (55.3%)	145 (49.32%)	218 (51.17%)			
Do you experience a sense of prioritizing the needs of animal owners over those of your animal patients at times?						
No	74 (56.06%)	155 (52.72%)	229 (53.76%)	0.41	0.41	0.52
Yes	58 (43.94%)	139 (47.28%)	197 (46.24%)			
Do you experience conflicting emotions or thoughts about this situation?						
Never	37 (28.03%)	99 (33.67%)	136 (31.92%)	7.06	6.78	0.13
Rarely	26 (19.7%)	72 (24.49%)	98 (23.00%)			
Sometimes	45 (34.09%)	94 (31.97%)	139 (32.63%)			
Often	18 (13.64%)	21 (7.14%)	39 (9.15%)			
Always	6 (4.55%)	8 (2.72%)	14 (3.29%)			

dilemmas and that they find these stressful with implications on their wellbeing (Batchelor and McKeegan, 2012). Similarly, in various studies conducted by Batchelor and Keegan (2012) and Moses *et al.* (2018), veterinarians have encountered a moral dilemma when they perceive a client's inability or failure to provide care for the animal patient, with euthanasia representing the most extreme example of this conflict. Furthermore, Tannenbaum (1993) also highlighted that veterinarians encounter the fundamental ethical aspect that underlies all interactions between humans and animals on a daily basis. In a study conducted by Kogan *et al.* (2004), it was observed that female veterinary students possess higher self-expectations compared to their male counterparts. This finding may help explain why female veterinarians face a greater risk of experiencing depression, anxiety, overall stress and burnout. Many women establish excessively high standards of excellence and place undue pressure on themselves to succeed in their careers, which may be linked to increased vulnerability to psychological distress and physical illness (Caltabiano and Caltabiano, 1994 and Phillips-Miller *et al.,* 2001). Moreover, unrealistic academic or professional expectations can contribute to an unbalanced lifestyle, leading to physical and emotional exhaustion, depression and addiction (Firth-Cozens, 1987). For instance, depression can manifest as heightened irritability, diminished concentration, decision-making difficulties and memory impairment (Firth-Cozens, 1987). Several studies among female medical students and physicians have also identified similar gender differences, revealing elevated rates of distress (Frank and Dingle, 1999; Lloyd, 1984). Hsu and Marshall (1987) discovered that female physicians are 1.5 times more likely to experience depression and eight times more likely to suffer from severe depression compared to male physicians.

The results of the survey further revealed a statistically significant gender difference in the mean moral distress scores of participants. In situations when there was conflict of opinion with owners, discussion with colleagues followed by discussion with seniors was a way to sort out conflict. However, a significantly ($P<0.01$) higher percentage of male veterinary practitioners (11.22%) did nothing as compared to females (1.52%) to solve the issue. In situations, when veterinarians felt something as non-ethical, most of them preferred to discuss the issue with colleagues followed by superior officers. However, females were significantly proactive to discuss ($P<0.01$) as compared to males. To compound this, it is inferred that males have a false belief of coping well to the situation or a perceived stigma in seeking help from others (Addis and Mahalik, 2003). Likewise, Kogan *et al.* (2004) discovered that female veterinarians exhibited significantly higher levels of certain attributes like "Effective client relations", "Effective relationships with staff members" and "Relationships with other veterinarians" compared to their male counterparts.

When the animal owner refused advice from the veterinarian, the stress levels increased. Most respondents were mildly distressed; however, significantly severe distress ($P<0.01$) was observed for females as compared to males. The female veterinary surgeons of the United Kingdom also reported significantly higher stress ratings than the male veterinary surgeons (Batchelor and McKeegan, 2012). The research conducted by Kogan *et al.* (2004) and McLennan *et al.* (2005) had confirmed the presence of a high-stress environment among veterinary students, with implications that 30% of the students in their sample were at a high risk of experiencing burnout. Similarly, Batchelor and McKeegan (2012) reported that this scenario is a common and stressful dilemma faced by practicing veterinarians. Similarly, in a study on small animal veterinarians of the USA, the female respondents were more likely to find ethical dilemmas stressful (Kipperman *et al.,* 2018). Subjectively, the higher stress level in female veterinarians could also be because of an additional factor of perceiving their psychological workload to be higher than that of their male counterparts (Pohl *et al.*, 2022). Females coped up with stress mostly by talking with partners or friends, which was significantly higher ($P<0.01$) as compared to males. Nevertheless, veterinarians have shown an innate ability to navigate through ethical dilemmas, as observed in the research conducted by Knesl *et al.* (2017). Veterinary students were found to approach hypothetical ethical dilemmas with the aim of achieving a fair outcome for all parties involved and exhibited a care-centered approach, displaying empathy towards both the companion animal and the human caregiver (Quinn *et al.*, 2012). The distress and anxious behavior of respondents overlap and are related, with major distressing episodes of respondents frequently also involving their anxious behavior. Perseverative cognition of these stressful events in their daily life very often leads to anxiety (Brosschot *et al.*, 2010). This necessitates, whenever and wherever they occur concurrently, interventions and counselling at the personal level or even at the workplace; and increased provision of training and support (Batchelor and McKeegan, 2012).

Gender differences in how individuals experience moral distress and ethical conflict have extensively been studied in various healthcare professions, including medicine and nursing. Research has shown that women are more likely than men to experience moral distress and ethical conflict (Fox-Robichaud *et al.*, 2019 and Hamric *et al.*, 2012). Women may also experience moral distress more intensely and for a longer duration than men (Hamric *et al.*, 2012). A re-analysis of meta-analytic studies revealed that when faced with conflicting decisions between utilitarian and deontological principles, men tend to exhibit a stronger preference for utilitarian judgments compared to women (Friesdorf *et al.*, 2015). Additionally, Austin *et al.* (2017) proposed that variations in moral distress could be attributed to factors such as differences in values, communication styles and coping mechanisms between men and women. Furthermore, women may be more likely to seek support and engage in discussions about moral distress and ethical conflict compared to men (Hamric *et al.*, 2012). This may

be due to social norms and expectations around gender roles and communication. Similarly, research suggests that women may be more likely to experience ethical conflict in the workplace, particularly in male-dominated fields where their values and perspectives may be marginalized (DeCastro *et al*., 2014).

CONCLUSION

The results showed that both male and female respondents experienced moral distress about their work, but there were differences in the frequency and severity of distress. It is also important to note that gender is a complex and multifaceted construct and such gender differences should be interpreted with caution. Coping mechanisms also differed between genders, with females more likely to seek support from partners or friends. The findings emphasize the importance of providing adequate training and support to veterinary practitioners to navigate ethical dilemmas and promote well-being in the profession. As most respondents, across gender, have little to no training on resolving difference of opinion or selfcare, educational programs and resources to support veterinary practitioners in ethical decision-making and coping with moral distress need to be developed. Providing curriculum and training resources to both male and female veterinarians can assist them in effectively managing the emotional distress that is likely to arise in the course of their daily professional activities. Such changes would result in improved mental health, increased job engagement and work satisfaction of veterinarians, eventually contributing to the overall improvement of animal welfare.

ACKNOWLEDGEMENT

We would like to express our deepest gratitude to all the veterinary practitioners who participated in this study and generously shared their valuable insights and experiences. Without their cooperation and contribution, this study would not have been possible. We are also grateful to Director Extension Education, LUVAS who provided valuable feedback and guidance throughout the research process.

Conflict of interest

All authors declared that there is no conflict of interest.

REFERENCES

Addis, M.E. and Mahalik, J.R. (2003). Men, masculinity and the contexts of help seeking. The American Psychologist. 58(1): 5-14. https://doi.org/10.1037/0003-066x.58.1.5.

Allister, R. (2014). Veterinary perfectionism. Practice Life. 24: 6. https://veterinarywellbeing.wordpress.com/2014/10/02/veterinary-perfectionism/.

Austin, C.L., Saylor, R. and Finley, P.J. (2017). Moral distress in physicians and nurses: Impact on professional quality of life and turnover. Psychological Trauma: Theory, Research, Practice and Policy. 9(4): 399-406. https://doi.org/10.1037/tra0000201.

Batchelor, C.E. and McKeegan, D.E. (2012). Survey of the frequency and perceived stressfulness of ethical dilemmas encountered in UK veterinary practice. The Veterinary Record. 170(1): 19. https://doi.org/10.1136/vr.100262.

Benetato, M.A., Reisman, R. and McCobb, E. (2011). The veterinarian's role in animal cruelty cases. Journal of the American Veterinary Medical Association. 238(1): 31-34. https://doi.org/10.2460/javma.238.1.31

Brosschot, J.F., Verkuil, B. and Thayer, J.F. (2010). Conscious and unconscious perseverative cognition: Is a large part of prolonged physiological activity due to unconscious stress?. Journal of Psychosomatic Research. 69(4): 407–416. https://doi.org/10.1016/j.jpsychores.2010.02.002.

Caltabiano, M.L. and Caltabiano, N.J. (1994). Prevalence of type E multiple-role stress in professional women and impact of social support in affecting general health. Australian Journal of Marriage and Family. 15(3):161-174. https://doi.org/10.1080/1034652X.1994.11001118.

Corley, M.C. (2002). Nurse moral distress: A proposed theory and research agenda. Nursing Ethics. 9(6): 636-650. https://doi.org/10.1191/0969733002ne557oa

Cullinane, M., O'Sullivan, E., Collins, G., Collins, D.M. and More, S.J. (2012). Veterinary certificates for emergency or casualty slaughter bovine animals in the Republic of Ireland: are the welfare needs of certified animals adequately protected?. Animal Welfare. 21(S2): 61-67. https://doi.org/10.7120/096272812X13353700593563.

DeCastro, R., Griffith, K. A., Ubel, P. A., Stewart, A. and Jagsi, R. (2014). Mentoring and the career satisfaction of male and female academic medical faculty. Academic Medicine: Journal of the Association of American Medical Colleges. 89(2): 301. https://scholars.duke.edu/publication/1003819

Fine, A. and Mackintosh, C. (2016). The silent bark: Our moral responsibility to listen. Pet Partners Interactions, pp: 9-10. https://petpartners.org/learn/pet-partners-magazine/

Fourie, C. (2015). Moral distress and moral conflict in clinical ethics. Bioethics. 29(2): 91-97. https://doi.org/10.1111/bioe.12064.

Firth-Cozens, J. (1987). Emotional Distress in Junior House Officers. Br. Med. J. (Clin Res Ed). 295(6597): 533-536. https://doi.org/10.1136/bmj.295.6597.533.

Frank, E. and Dingle, A.D. (1999). Self-reported depression and suicide attempts among US women physicians. American Journal of Psychiatry. 156(12): 1887-1894. https://doi.org/10.1176/ajp.156.12.1887.

Friesdorf, R., Conway, P. and Gawronski, B. (2015). Gender differences in responses to moral dilemmas: A process dissociation analysis. Personality and Social Psychology Bulletin. 41(5): 696-713. https://doi.org/10.1177/0146167215575731.

Fox-Robichaud, A., Edmund, L. and Martin, C.M. (2019). Gender differences in career satisfaction, moral distress and incivility: A national, cross-sectional survey of Canadian critical care physicians. Canadian Journal of Anesthesia. 66(5): 503-511.

Hamric, A.B., Borchers, C.T. and Epstein, E.G. (2012). Development and testing of an instrument to measure moral distress in healthcare professionals. AJOB Primary Research. 3(2): 1-9. https://doi.org/10.1080/21507716.2011.652337.

Hatch, P.H., Winefield, H.R., Christie, B.A. and Lievaart, J.J. (2011). Workplace stress, mental health and burnout of veterinarians in Australia. Australian Veterinary Journal. 89(11): 460-468. https://doi.org/10.1111/j.1751-0813.2011.00833.

Hilliard, R., Harrison, C. and Madden, S. (2007). Ethical conflicts and moral distress experienced by paediatric residents during their training. Paediatrics and Child Health. 12(1): 29-35. https://doi.org/10.1093/pch/12.1.29.

Hobson West, P. and Jutel, A. (2020). Animals, veterinarians and the sociology of diagnosis. Sociology of Health and Illness. 42(2): 393-406. https://doi.org/10.1111/1467-9566.13017.

Hsu, K. and Marshall, V. (1987). Prevalence of depression and distress in a large sample of Canadian residents, interns, and fellow. Am. J. Psychiatry. 144(12): 1561-1566. https://researchgate.net/profile/Victor-Marshall-2/publication/19474215.

IBM (2017). IBM SPSS Statistics Version 25.0.0.2 Algorithms for Windows.

Littmann, J. and Viens, A.M. (2015). The ethical significance of antimicrobial resistance. Public Health Ethics. 8(3): 209-224. https://doi.org/10.1093/phe/phv025.

Kipperman, B., Morris, P. and Rollin, B. (2018). Ethical dilemmas encountered by small animal veterinarians: Characterisation, responses, consequences and beliefs regarding euthanasia. The Veterinary Record. 182(19): 548. https://doi.org/10.1136/vr.104619.

Kogan, L.R., McConnell, S.L. and Schoenfeld-Tacher, R. (2004). Gender differences and the definition of success: Male and female veterinary students' career and work performance expectations. Journal of Veterinary Medical Education. 31(2): 154-160. https://doi.org/10.3138/jvme.31.2.154.

Lamiani, G., Borghi, L. and Argentero, P. (2017). When healthcare professionals cannot do the right thing: A systematic review of moral distress and its correlates. Journal of Health Psychology. 22(1): 51-67.

Littmann, J. and Viens, A.M. (2015). The ethical significance of antimicrobial resistance. Public Health Ethics. 8(3): 209-224. https://academic.oup.com/phe/article/8/3/209/2362858.

Lloyd, C. and Gartrell, N.K. (1984). Psychiatric symptoms in medical students. Comprehensive Psychiatry. 25(6): 552-565. https://doi.org/10.1016/0010-440X(84)90036-1.

Magalhães Sant'Ana, M., More, S.J., Morton, D.B., Osborne, M. and Hanlon, A. (2015). What do European veterinary codes of conduct actually say and mean? A case study approach. Veterinary Record. 176(25): 654-654. http://veterinaryrecord.bmj.com/

McLennan, M.W. and Sutton, R.H. (2005). Stress in veterinary science students: A study at the University of Queensland. Journal of Veterinary Medical Education. 32(2): 213-218. http://dx.doi.org/10.3138/jvme.32.2.213.

Moses, L., Malowney, M.J. and Wesley Boyd, J. (2018). Ethical conflict and moral distress in veterinary practice: A survey of North American veterinarians. Journal of Veterinary Internal Medicine. 32(6): 2115-2122. https://doi.org/10.1111/jvim.15315.

Phillips-Miller, D., Morrison, C., Campbell, N.J. and Columbus, F. (2001). Same profession, different career: A study of men and women in veterinary medicine. Advances in Psychology Research. 5: 1-53.

Quinn, C., Kinnison, T. and May, S. A. (2012). Care and Justice orientations to moral decision making in veterinary students. Veterinary Record. 171(18): 446-446. https://doi.org/10.1136/vr.101003.

Pohl, R., Botscharow, J., Böckelmann, I. and Thielmann, B. (2022). Stress and strain among veterinarians: A scoping review. Irish Veterinary Journal. 75(1): 15. https://doi.org/10.1186/s13620-022-00220-x

Tannenbaum, J. (1993). Veterinary medical ethics: A focus of conflicting interests. Journal of Social Issues. 49(1): 143-156. https://doi.org/10.1111/j.1540-4560.1993.tb00914.x

Yeates, J.W. and Main, D.C.J. (2011). Veterinary opinions on refusing euthanasia: Justifications and philosophical frameworks. Veterinary Record. 168(10): 263-263. https://doi.org/10.1136/vr.c6352