

ORIGINAL RESEARCH

Burnout and mental health among veterinarians: The role of self-compassion and associated risk factors

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Abstract

Background: Veterinarians represent a population at risk for burnout. The influence of self-compassion on the development and consequences of burnout remains poorly understood.

Methods: A validated 30-item survey was disseminated to registered members of the College of Veterinarians of Las Palmas (Spain) via Google Survey between October and December 2023 to assess levels of burnout (Maslach Burnout Inventory—general survey) and self-compassion (self-compassion scale) and explore the prevalence of anxiety, depression and benzodiazepine use.

Results: A total of 141 responses were received. Respondents exhibited high levels of exhaustion and cynicism. Older veterinarians exhibited lower cynicism, while those with 1–10 years of experience reported higher exhaustion. Veterinarians with more than 10 years in their current role demonstrated increased efficacy. Females showed a lower likelihood of self-compassion. Exhaustion and cynicism were negatively correlated with self-compassion. A total of 19.8% of the respondents reported being diagnosed with anxiety/depression, and 19.1% took benzodiazepines, half of them without a prescription.

Limitations: This cross-sectional study provides a snapshot of the situation at a single point in time and may be susceptible to response bias, such as the healthy worker effect.

Conclusion: These findings underscore the urgent need for interventions to address the complex interplay of burnout, self-compassion, mental health and demographic factors within the veterinary profession.

KEYWORDS

burnout, mental health, occupational stress, risk factors, self-compassion

INTRODUCTION

Burnout is a state of emotional, mental and physical exhaustion resulting from chronic workplace stress.¹ It is a chronic response that causes exhaustion, cynicism and reduced efficacy, impacting affected individuals' health, personal life and job performance.^{2,3} It is estimated that burnout accounts for 8% of work-related illnesses, affecting women disproportionately and with higher prevalence among younger generations compared to older ones.⁴ Burnout is charac-

terised by emotional exhaustion, depersonalisation and reduced personal accomplishment. Emotional exhaustion manifests as feelings of depletion and fatigue, while depersonalisation involves cynical and detached attitudes towards work and clients. Reduced personal accomplishment is characterised by feelings of incompetence and lack of achievement. These psychological symptoms often correlate with physical manifestations, including, but not limited to, immune dysfunction, sleep disturbances and somatic complaints.^{5,6}

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Certain professions exhibit an elevated risk of burnout. Healthcare professionals and those in hazardous occupations (e.g., air traffic controllers, firefighters) are particularly susceptible, although sociodemographic factors play a significant role in burnout risk.^{7,8} The veterinary profession is considered a high-risk profession for the development of burnout.^{9,10} Growing demands from pet owners, excessive workloads, the lasting effects of the Covid-19 pandemic, educational debt and instances of cyberbullying all contribute to burnout. This situation leads to a significant deterioration in veterinary professionals' health, sometimes resulting in fatal outcomes,¹¹ and substantial economic losses for the sector.¹² Recent data indicated that 23% of Spanish veterinarians suffered from burnout syndrome, with higher prevalence in small animal clinicians and women.¹³ Pandemic-related restrictions, veterinary staff shortages and increased client load with extended appointment durations were proposed as possible explanations for this situation.

Several key risk factors for burnout in veterinary professionals have previously been identified.¹⁴ Younger veterinarians, particularly those who are female, exhibit disproportionately high burnout rates. A direct correlation exists between patient care workload and burnout, with practitioners managing more than 30 patients daily demonstrating increased susceptibility. Moreover, work-life imbalance is strongly associated with burnout levels. Conversely, strategic planning and well-defined professional goals have been shown to mitigate burnout risk. Despite these findings, burnout prevalence continues to escalate, posing a significant threat to the wellbeing of veterinary professionals,¹⁴ especially considering that burnout begins to manifest even during the student stage.¹⁵ Nevertheless, despite the influence of certain sociodemographic factors, which are individual to each professional,⁷ burnout is, by definition, an occupational issue.¹⁶

Self-compassion is defined as being kind and understanding towards oneself, encompassing self-kindness and acceptance of human imperfection.^{17,18} This construct mediates the relationship between self-critical perfectionism, depression/anxiety and burnout. It comprises three core dimensions¹: self-kindness, characterised by empathy and support for oneself²; common humanity, recognising shared vulnerabilities and imperfections among individuals³; and mindfulness, involving present-moment awareness and acceptance of thoughts and feelings without judgment.¹⁹ Different studies have shown that low self-compassion predisposes to burnout due to high levels of perfectionism.^{17,20,21} The confluence of low self-compassion, elevated stress and adverse work conditions, including overwork, underpayment and diminished social status, significantly contributes to burnout, consequently increasing the likelihood of anxiety and depressive disorders.²² Anxiety, characterised by excessive fear and worry, can manifest as a clinical disorder, imposing significant distress. Depression, a mood disorder marked by persistent

sadness, hopelessness and anhedonia, represents a distinct clinical entity with profound implications for overall health and functioning. Collectively, these findings suggest a complex interplay between burnout, self-compassion and the development of stress and/or anxiety, suggesting that these variables may be inextricably linked.²³

Worldwide, a 28% increase in depressive disorder severity has been observed in the period 2020–2021, with a projected 25% rise in anxiety disorder cases.^{24,25} According to data collected in a report by the Spanish Ministry of Health, anxiety disorder affects 6.7% of the Spanish population, while depression is present in 4.1%. As a consequence, an increase in benzodiazepine consumption has been observed,²⁴ placing Spain as the third largest consumer of these drugs in Europe, after Portugal and Croatia.²⁴ Benzodiazepines constitute a pharmacological class exhibiting muscle relaxant properties. While efficacious in the management of insomnia and anxiety, they are ineffective in treating depression. Moreover, benzodiazepines carry a risk of dependency and withdrawal. Despite the availability of established treatment modalities for depression and anxiety, a substantial proportion of affected individuals (40%) do not seek professional care. Of those who do, less than half receive adequate treatment.²⁶ Inappropriate benzodiazepine prescription, overdose and absent psychological support contribute to severe individual consequences.²⁷ Subtle adverse effects, including sedation, cognitive impairment and paradoxical reactions, complicate detection and are linked to occupational impairment, particularly within high-stress professions such as veterinary medicine.

This study aimed to assess the prevalence of burnout among veterinarians in the province of Las Palmas (Canary Islands, Spain). Additionally, we explored the relationship between self-compassion and burnout to elucidate potential underlying factors, and evaluated the utilisation and perceived necessity of pharmacological interventions for work-related anxiety and depression within this population.

METHODS

Instruments

The assessment of burnout among veterinarians was conducted using the Maslach Burnout Inventory—general survey,²⁸ a Spanish-validated scale²⁹ that is currently employed by the Ministry of Labor and Social Affairs of the Government of Spain.³⁰ The instrument comprises 15 items rated on a seven-point Likert scale ranging from 'never' to 'always'. Following the guidelines of Schaufeli et al.,²⁸ the questionnaire items were grouped to obtain a single score for the three parameters considered in the survey: exhaustion (mean values from five questions: Q1, Q2, Q3, Q4 and Q6), cynicism (mean values from four questions: Q8, Q9, Q13 and Q14) and professional efficacy (mean values from six questions: Q5, Q7, Q10, Q11, Q12 and Q15).

Self-compassion among veterinarians was measured using a Spanish-validated instrument (self-compassion scale).³¹ The instrument comprises 12 items rated on a five-point Likert scale ranging from 'almost never' to 'almost always'. Six subscale scores are derived through the pairwise averaging of items: self-kindness–self-judgment, common humanity–isolation and mindfulness–overidentification.

To assess respondents' mental health status, three dichotomous (yes/no) questions were included: (1) current diagnosis of anxiety or depression and ongoing treatment; (2) current absence of diagnosis but perceived need for treatment; and (3) use of benzodiazepines to manage anxiety or depression. Finally, demographic data, including age, sex, geographical location and years working in veterinary practice, were collected. The study was anonymised, and no personal data were collected.

Participants

Participants were recruited from among those registered with the College of Veterinarians of Las Palmas (Spain), the regulatory body for veterinarians in the province. A 30-item online questionnaire was disseminated via the college's official online bulletin board and email distribution list between 17 October and 15 December 2023. The dissemination of information was carried out by the administrative staff of the Official College of Veterinarians of Las Palmas, following approval from the president and manager of the institution. The target audience comprised all registered and active veterinarians. A follow-up email was sent 1 month after the initial contact to further solicit collaboration. No participants received any form of compensation for their collaboration, ensuring that responses were provided altruistically and disinterestedly. The inclusion criteria were as follows: being a registered member of the College of Veterinarians of Las Palmas, being actively practising and completing the entire questionnaire. No participants were excluded based on age, sex or any other factor.

We also requested the following official data from the college: the total number of registered veterinarians, their age, sex and the length of service. According to official records, a total of 1070 veterinarians were registered in November 2023. These individuals were predominantly women ($n = 665$, 62.1%), with a mean age of 42.2 years (standard deviation [SD] = 10.6). Regarding professional experience, 5.4% ($n = 58$) had been practising for less than 1 year, 26.4% ($n = 282$) had been practising for 1–5 years, 19.7% ($n = 211$) had been practising for 5–10 years and 48.5% ($n = 519$) had been practising for over 10 years.

Data collection and statistical analysis

The data collected were handled solely by the authors of this study. The data were only used for the pur-

pose of this study, and there was no further procedure attempting to correlate the responses received with any specific veterinarian.

Following the conclusion of the data collection phase, the data were exported into an Excel matrix (Microsoft Corporation) and subsequently coded in Statistical Package for Social Sciences (SPSS, IBM Corporation). A descriptive analysis of the variables was conducted based on their nature, considering means, SDs, medians and interquartile ranges for continuous variables, as well as frequencies for categorical variables. The normality of continuous variables was assessed using the Kolmogorov–Smirnov test. Differences between means were explored using the *t*-test or ANOVA. For non-normally distributed continuous variables, non-parametric tests (Mann–Whitney *U*-test or Kruskal–Wallis test, as appropriate) were employed. Relationships between continuous variables were explored through bivariate correlation (Spearman's ρ), while differences between categorical variables were assessed using the chi-squared test. Binary logistic regression analyses were conducted to determine the influence of different variables. Graphical representations were created using Excel or SPSS. We used PASW Statistics (version 19.0, SPSS) to manage the database of the study and to perform the statistical analyses. Probability values of less than 0.05 (two-tailed) were considered statistically significant.

RESULTS

Characteristics of the study population

A total of 141 veterinarians (13.2% of the registered population) completed the survey. The descriptive characteristics of the participating veterinarians are summarised in Table 1. The respondents were predominantly female (72.3%), with a mean age of 39.6 years (SD = 10.4, range: 22–62). The majority resided in urban areas on the island of Gran Canaria (84.9%). Most participants (41.1%) graduated between 2010 and 2019. Over half (50.4%) had more than 10 years of veterinary experience, while 23.4% had 1–5 years of experience. Approximately one-third (34.8%) had occupied their current position for 1–5 years. Both the average age (42.2 years) and sex proportion (62.1% are women), as well as the time since registration, mirrored those of the entire veterinary registry ($p > 0.05$).

Analysis of burnout syndrome

Supporting Information S1 details work perceptions based on 15 items rated 'never' to 'always'.²⁸ High frequencies of emotional exhaustion (31.2%), end-of-day burnout (25.5%) and morning fatigue (22.7%) were observed (questions Q1, Q2 and Q3, respectively). Daily work stress affected 19.1% (Q4), with 23.4% reporting constant burnout (Q6). A significant propor-

TABLE 1 Descriptive analysis of the demographic variables of the participating veterinarians ($n = 141$)

Variable	<i>n</i>	%
Sex		
Male	39	27.7
Female	102	72.3
Age (years)		
Mean $\pm$ SD	39.6 $\pm$ 10.4	
Median (range)	38 (22–62)	
Year of graduation		
1980–1989	5	3.5
1990–1999	28	19.0
2000–2009	31	22.0
2010–2019	58	41.1
2020–2023	19	13.5
Time since qualification (years)		
<1	10	7.1
1–5	33	23.4
5–10	27	19.1
>10	71	50.4
Time in current position (years)		
<1	24	17.0
1–5	49	34.8
5–10	23	16.3
>10	45	31.9
Island of residence		
Gran Canaria	119	84.9
Lanzarote	12	8.5
Fuerteventura	10	7.1
Location of practice		
Urban	125	88.7
Rural	16	11.3

Abbreviation: SD, standard deviation.

tion of respondents reported decreased job interest (24.2%), decreased enthusiasm (31.9%) and increased cynicism (46.1%) (questions Q8, Q9 and Q13, respectively). These findings highlight a decline in work engagement and potential challenges in maintaining job satisfaction. On the other hand, 44.0% of the participants reported contributing effectively to their organisation (Q7), and 47.5% and 39.0% reported high self-efficacy and task effectiveness (questions Q10 and Q15, respectively).

The questionnaire items were grouped to compute single scores for exhaustion, cynicism and professional efficacy.^{28,29} Table 2 presents a comparative analysis of these burnout components against normative data, according to official data published by the Spanish Government.³⁰ The results indicated elevated levels of exhaustion (3.69 ± 1.49) and cynicism (2.94 ± 1.66) among participants, with 36.9% and 33.3%, respectively, falling into the 'high' category. According to official data, the mean values for the burnout components exhaustion and cynicism were 2.12 ± 1.23 and 1.50 ± 1.30 , respectively (Table 2). Profes-

sional efficacy (4.38 ± 0.89) in participants was slightly lower than the normative data (4.45 ± 0.9). These findings suggest a concerning burnout profile within the sample.

Analysis of demographic factors associated with exhaustion, cynicism and work efficacy is shown in [Supporting Information S2](#). Statistically significant differences were observed in burnout components based on various demographic factors. Females exhibited higher levels of exhaustion (3.8 ± 1.5) and cynicism (3.0 ± 1.6) compared to males (3.3 ± 1.5 and 2.8 ± 1.8 , respectively), although the differences were not statistically significant. Graduation year significantly influenced exhaustion and cynicism, with those graduating between 2010 and 2019 reporting higher exhaustion and cynicism ($p = 0.001$ and 0.008 , respectively). Island of residence and rural-urban classification differences were noted, particularly for participants from Lanzarote, who displayed higher levels of exhaustion and cynicism and lower efficacy ([Supporting Information S2](#)). However, the result related to cynicism was the only one that reached statistical significance ($p = 0.014$). Veterinarians practising in urban environments exhibited higher levels of exhaustion than those working in rural settings (3.8 vs. 2.9, respectively; $p = 0.025$). Regarding years in practice and current job years, veterinarians with 1–5 years in practice experienced elevated exhaustion ($p = 0.021$) and cynicism ($p = 0.044$) compared to veterinarians with more than 5 years of experience, while those with longer job tenure (>10 years) showed lower cynicism compared to veterinarians with shorter job tenure ($p = 0.028$). In relation to age, we observed a negative correlation with cynicism (Spearman's $\rho = -0.207$, $p = 0.014$) and a positive correlation with work efficacy (Spearman's $\rho = 0.178$, $p = 0.034$).

To investigate more thoroughly the contribution of demographic variables to burnout in the veterinary population studied, we employed binary logistic regression modelling (Table 3). Age exhibited a significant negative association with cynicism ($\text{Exp}(B) = 0.946$, 95% confidence interval [CI]: 0.91–0.99), suggesting that as age increases, cynicism tends to decrease ($p = 0.013$). Veterinarians who had been practising for 1–5 years ($\text{Exp}(B) = 15.50$, 95% CI: 2.64–102.8) and 5–10 years ($\text{Exp}(B) = 12.50$, 95% CI: 1.87–83.6) had significantly higher odds of exhaustion compared to those with who had been practising for less than 1 year ($p = 0.005$ and 0.009 , respectively). Additionally, those practising for more than 10 years had significantly higher odds of exhaustion ($\text{Exp}(B) = 4.462$, 95% CI: 1.13–17.7; $p = 0.033$). Finally, veterinarians who had been in their current job for more than 10 years had significantly higher odds of efficacy ($\text{Exp}(B) = 3.294$, 95% CI: 1.16–9.33; $p = 0.025$) than those who had been in their current job for less than 1 year.

Analysis of self-compassion

In the present study, the overall self-compassion score was slightly lower (16.83 ± 4.67) compared to the

TABLE 2 Descriptive analysis of participants' levels of exhaustion, cynicism and professional efficacy compared with the normative data published by the Spanish Government (*n* [%])

	Exhaustion (normative data)	Exhaustion	Cynicism (normative data)	Cynicism	Efficacy (normative data)	Efficacy
Very low	<0.4	2 (1.4)	<0.2	7 (5.0)	<2.83	12 (8.5)
Low	0.5–1.2	10 (7.1)	0.3–0.5	8 (5.7)	2.83–3.83	20 (14.2)
Medium (low)	1.3–2.0	10 (7.1)	0.6–1.24	9 (6.4)	3.84–4.50	39 (27.7)
Medium (high)	2.1–2.8	19 (13.5)	1.25–2.25	29 (20.6)	4.51–5.16	38 (27.0)
High	2.9–4.5	52 (36.9)	2.26–4.0	47 (33.3)	5.17–5.83	32 (22.7)
Very high	>4.5	48 (34.0)	>4.0	41 (29.1)	>5.83	0
Mean	2.12	3.69	1.50	2.94	4.45	4.38
SD	1.23	1.49	1.30	1.66	0.9	0.89

Note. Normative data are presented in six subcategories (from very low to very high) based on the score range of each subscale, according to data from the Ministry of Labor and Social Affairs (NTP 732: Síndrome de estar quemado por el trabajo 'Burnout' (III): instrumento de medición. Ministerio de Trabajo y Asuntos Sociales, Gobierno de España³⁰). Based on this official categorisation, the number and percentage of participants falling into each subcategory were presented. The mean and standard deviation (SD) of both the official values and the present series were included

TABLE 3 Univariate analysis of demographic risk factors associated with exhaustion, cynicism and work efficacy

	Exhaustion		Cynicism		Efficacy	
	Exp(<i>B</i>)	95% CI	Exp(<i>B</i>)	95% CI	Exp(<i>B</i>)	95% CI
Sex						
Male	#Ref.		#Ref.		#Ref.	
Female	2.054	0.79–5.28	1.094	0.41–2.88	0.792	0.38–1.66
Age ^a	0.984	0.94–1.03	0.946	0.91–0.99*	1.031	0.99–1.06
Location of practice						
Urban	#Ref.		#Ref.		#Ref.	
Rural	0.346	0.11–0.12	0.394	0.12–1.26	1.016	0.36–2.88
Years in practice						
<1	#Ref.		#Ref.		#Ref.	
1–5	15.50	2.64–102.8**	1.111	0.10–12.1	0.857	0.20–3.66
5–10	12.50	1.87–83.6**	0.489	0.05–4.79	1.031	0.23–4.53
>10	4.462	1.13–17.7*	0.415	0.05–3.53	2.304	0.59–8.90
Current job (years)						
<1	#Ref.		#Ref.		#Ref.	
1–5	2.316	0.60–8.94	0.545	0.10–2.85	1.630	0.59–4.51
5–10	1.250	0.29–5.38	0.606	0.09–4.01	2.182	0.67–7.09
>10	1.217	0.35–4.23	0.250	0.05–1.23	3.294	1.16–9.33*

Note. *p*-Values were calculated using binary logistic regression. The level of exhaustion, cynicism and efficacy was dichotomised to perform binary logistic regression: in one group, the levels ranged from very low to medium (low), and in the other group, the levels ranged from medium (high) to very high.

Abbreviations: 95% CI, 95% confidence interval; #Ref., reference category.

^aIntroduced as a continuous variable.

**p*-Value < 0.05.

***p*-Value < 0.01.

normative data (16.89 ± 3.46). The scores for self-judgment (3.28 ± 0.98), isolation (3.40 ± 1.15) and overidentification (3.77 ± 1.17) were higher than the normative values (2.91 ± 0.65 , 2.67 ± 0.61 and 2.91 ± 0.83 , respectively),³¹ indicating a potential inclination towards self-critical thoughts, increased feelings of isolation and a stronger tendency to overidentify with negative emotions in the current study population.

Age was positively associated with self-compassion (Spearman's $\rho = 0.306$, $p < 0.001$). We observed a significant positive correlation with self-kindness (Spearman's $\rho = 0.189$, $p = 0.024$), common humanity (Spearman's $\rho = 0.207$, $p = 0.014$) and mindfulness

(Spearman's $\rho = 0.196$, $p = 0.020$). In contrast, there was a negative correlation with isolation (Spearman's $\rho = -0.315$, $p < 0.001$) and overidentification (Spearman's $\rho = -0.278$, $p = 0.001$). Taken together, these results highlight the vulnerability of younger veterinarians. Females showed a lower score on the common humanity scale and a higher score on the overidentification scale compared to males (3.0 vs. 3.5 , $p = 0.033$ and 4.0 vs. 3.5 , $p = 0.033$, respectively; [Supporting Information S3](#)). The number of years practising was associated with overidentification, with higher scores in those who had been practising for 5 or fewer years ($p = 0.037$) compared to those who had been prac-

TABLE 4 Bivariate correlations between the representative scales of burnout syndrome (exhaustion, cynicism and work efficacy) and the self-compassion scale and its six subscales

	Exhaustion	Cynicism	Professional efficacy
Self-compassion			
Spearman's ρ	-0.567	-0.466	0.343
<i>p</i> -Value	<0.001	<0.001	<0.001
Self-kindness			
Spearman's ρ	-0.368	-0.306	0.273
<i>p</i> -Value	<0.001	<0.001	0.001
Self-judgement			
Spearman's ρ	0.389	0.322	-0.196
<i>p</i> -Value	<0.001	<0.001	0.020
Common humanity			
Spearman's ρ	-0.294	-0.205	0.236
<i>p</i> -Value	<0.001	0.015	0.005
Isolation			
Spearman's ρ	0.534	0.533	-0.278
<i>p</i> -Value	<0.001	<0.001	0.001
Mindfulness			
Spearman's ρ	-0.363	-0.268	0.369
<i>p</i> -Value	<0.001	0.001	<0.001
Overidentification			
Spearman's ρ	0.587	0.458	-0.245
<i>p</i> -Value	<0.001	<0.001	0.003

tising for more than 5 years (Supporting Information S3). Univariate analyses found that females showed a lower likelihood of self-compassion ($\text{Exp}(B) = 0.336$, 95% CI: 0.15–0.74; $p < 0.01$). Age also appeared to be a key factor, with an increase in age being associated with a higher likelihood of self-compassion ($\text{Exp}(B) = 1.072$, 95% CI: 1.03–1.11; $p < 0.001$). Similarly, those participants practising for 5–10 years and more than 10 years had a higher likelihood of self-compassion ($p < 0.05$).

To examine the relationship between burnout and self-compassion, bivariate correlations were conducted. Table 4 shows significant negative associations between global self-compassion and the burnout components exhaustion and cynicism ($p < 0.001$ in both cases). Further analysis of self-compassion subscales indicated that self-kindness, common humanity and mindfulness were negatively correlated with exhaustion and cynicism, suggesting a protective effect against burnout (Table 4). Conversely, self-judgment, isolation and overidentification were positively correlated with exhaustion and cynicism ($p < 0.001$ in all cases). On the other hand, positive correlations emerged between professional efficacy and self-compassion (Spearman's $\rho = 0.343$, $p < 0.001$), particularly its adaptive subscales (self-kindness, common humanity and mindfulness).

Demographic factors associated with mental health and their relationship with burnout syndrome and self-compassion

A total of 28 participants (19.8%) reported being diagnosed with anxiety/depression, although 45 (31.9%) responded that they were not diagnosed but believed they needed treatment. Additionally, 14 individuals not diagnosed with anxiety/depression reported taking benzodiazepines, a similar figure to those diagnosed who take this type of medication ($n = 13$). However, most respondents reported not using anxiolytics ($n = 114$, 80.5%). It is worth noting that the distribution of these variables (intake of benzodiazepines [yes/no] vs. diagnosis of anxiety/depression and psychological/pharmacological treatment [yes/no]) was statistically different ($p < 0.001$).

We observed that women expressed a greater need for psychological assistance (39 out of 102 women = 38.2%) compared to men (six out of 39 men = 15.4%) ($p = 0.009$). The median age of those with the subjective feeling of needing psychological/therapeutic support for undiagnosed anxiety/depression was significantly lower than that of those who reported not needing help (34 vs. 40 years, respectively; $p = 0.002$). Age-related differences in professional experience and job tenure influenced the perceived need for treatment. Veterinarians with less than 1 year of experience reported the highest rates of perceived need (60%), while those with more than 10 years of experience reported the lowest perceived need (21%; $p = 0.024$). Similarly, those in their current position for less than a year had higher perceived need for treatment (54.2%) compared to those in their current position for more than 10 years (15%; $p = 0.010$). Rural-urban classification also seemed to exert some influence, as veterinarians practising in urban environments reported a higher need for psychological/pharmacological treatment for anxiety/depression than those practising in rural areas (35.2% vs. 6.3%, respectively; $p = 0.021$).

The relationship between anxiety/depression, burnout and self-compassion was examined (Table 5). Individuals with anxiety/depression diagnoses reported higher exhaustion (4.2 ± 1.3 , $p < 0.05$), higher cynicism (3.6 ± 1.5 , $p < 0.05$), lower self-compassion (14.5 ± 4.8 , $p < 0.01$) and lower self-kindness (2.6 ± 1.1 , $p < 0.05$) compared to non-diagnosed participants. Benzodiazepine use was associated with increased exhaustion (4.2 ± 1.1 , $p < 0.05$) and cynicism (3.5 ± 1.5 , $p < 0.05$).

DISCUSSION

Burnout is a recognised consequence of chronic work stress arising from adverse conditions, including gender pay disparities and work–family conflict.³² While often associated with the medical profession, veterinarians are also highly susceptible to burnout.¹¹ This condition can manifest with diminished self-compassion and increased risk of anxiety, depression

TABLE 5 Association between anxiety/depression and burnout and self-compassion scales

	Diagnosis of anxiety/depression		Need for treatment		Benzodiazepine use	
	No	Yes	No	Yes	No	Yes
Exhaustion ^a	3.6 ± 1.5	4.2 ± 1.3*	3.4 ± 1.4	4.3 ± 1.5***	3.6 ± 1.6	4.2 ± 1.1*
Cynicism ^a	2.8 ± 1.7	3.6 ± 1.5*	2.7 ± 1.6	3.4 ± 1.6*	2.8 ± 1.7	3.5 ± 1.5*
Efficacy ^b	4.7 (4.0–5.1)	4.3 (3.5–4.7)	4.7 (4.0–5.0)	4.5 (3.9–4.9)	4.7 (4.1–5.0)	4.2 (3.5–5.0)
Self-compassion ^a	17.4 ± 4.5	14.5 ± 4.8**	17.9 ± 4.7	14.5 ± 3.7***	17.0 ± 4.8	15.9 ± 4.2
Self-kindness ^a	3.1 ± 0.9	2.6 ± 1.1*	3.1 ± 1.0	2.6 ± 0.8**	3.0 ± 1.0	2.9 ± 1.1
Self-judgement ^b	3.0 (2.5–4.0)	3.5 (3.0–4.9)*	3.0 (2.5–4.0)	3.5 (3.0–4.0)	3.5 (2.5–4.0)	3.0 (3.0–4.0)
Common humanity ^b	3.0 (2.5–3.5)	2.5 (2.0–3.0)**	3.0 (2.5–3.5)	2.5 (2.0–3.2)**	3.0 (2.5–3.5)	2.5 (2.0–3.5)
Isolation ^b	3.5 (2.5–4.0)	4.3 (3.5–4.5)**	3.0 (2.5–4.0)	4.0 (3.5–4.7)***	3.5 (2.5–4.5)	3.5 (3.0–4.5)
Mindfulness ^a	3.4 ± 1.1	3.1 ± 0.8	3.5 ± 0.9	2.9 ± 1.0***	3.3 ± 1.0	3.1 ± 1.1
Overidentification ^b	4.0 (3.0–4.5)	4.5 (3.1–5.0)*	3.5 (2.5–4.5)	4.5 (3.8–5.0)***	4.0 (3.0–5.0)	4.5 (3.5–5.0)

^aVariables normally distributed: Student's *t*-test. Data expressed as mean ± standard deviation.

^bVariables non-normally distributed: Mann-Whitney *U*-test. Data expressed as median and interquartile range.

**p*-Value < 0.05.

***p*-Value < 0.01.

****p*-Value < 0.001.

and substance abuse, particularly benzodiazepines. Despite these challenges, many individuals remain undertreated, highlighting the need for comprehensive mental health support. Veterinarians are often perceived as vocationally driven individuals finding fulfilment in animal care and interpersonal relationships. However, contemporary realities diverge from this ideal.³⁴ Given this discrepancy, it is imperative to explore how veterinary curricula can incorporate wellness and resilience training to equip students for the profession's emotional demands. As a reflection of the importance and apprehension that this topic engenders, a groundbreaking initiative launched by the Catalan Veterinary Council aims to improve the emotional wellbeing of Spanish veterinary students. By fostering a professional, dignified and healthy learning environment, this programme seeks to lay the foundation for the future success of young veterinarians.³⁵ Moreover, in response to the rising concerns, the World Small Animal Veterinary Association has taken a proactive step by releasing professional wellness guidelines.³⁶

Burnout is a global issue affecting veterinarians, as evidenced by studies from Spain, Korea, Germany, the United States and other countries. These investigations highlight the profession's elevated suicide rates and the recognition of burnout as an occupational disease in nations such as Denmark, France, Hungary, Portugal and Sweden.^{4,33,37,38} Notably, female veterinarians are disproportionately affected. Consistent with findings from other regions, female veterinarians in this study exhibited higher levels of burnout. This is particularly concerning given the female-dominated nature of the profession, especially in small animal clinical practice. Furthermore, the emergence of mental health challenges during veterinary studies indicates a potential baseline for burnout upon entering the workforce. Earlier research on veterinary students has demonstrated that women exhibit greater sensitivity to animal cruelty, increasing their vulnerability to

developing depression.¹⁵ This idea is reinforced in the present study in relation to the self-perception of mental health and the use, sometimes non-prescribed, of anxiolytics.

The financial instability experienced by many veterinarians due to their reliance on client income is a major contributing factor to burnout rates.³⁶ Post-pandemic economic difficulties have limited client access to veterinary care,³² resulting in euthanasia decisions by financially burdened owners. This, coupled with the ethical complexities of veterinary medicine, contributes to heightened burnout risk among professionals.^{39,40} While not the primary focus of this study, the impact of euthanasia on veterinary wellbeing and the ethical burden of animal care decision making warrant further investigation. Trait perfectionism, a known individual difference, has been linked to increased vulnerability to distress in response to morally challenging events within veterinary practice. Given the distinctive nature of moral stressors, which involve behaviours that violate one's personal moral beliefs or perceived obligations,⁴¹ their influence on burnout development must be carefully considered.

Age was also a significant factor for burnout in the present study, with younger veterinarians and those with less than 5 years of experience more likely to report burnout. These findings align with prior studies from Brazil, the United States and Spain, indicating increased psychological distress among younger female practitioners.^{33,37,42} The consistency of these findings underscores the importance of preventive interventions. Veterinary schools should integrate mental health training into their curricula, and professional associations should provide comprehensive support services, including wellness guidelines and psychological counselling.³⁶ Long-term organisational interventions are recommended to foster engagement and address workplace issues that contribute to inefficacy, overextension and burnout. Addi-

tionally, analysing data through latent profile analysis would provide a more nuanced understanding of burnout, enabling earlier identification of workplace challenges and facilitating targeted interventions and comparisons across diverse populations.⁴³ It is important to note that both stress and mental health significantly impact not only the individual but also the workflow and work environment, directly influencing job performance and patient care outcomes.⁴⁴

Our study revealed that 19.1% ($n = 27$) of participants used anxiolytics, half of whom did not have a formal anxiety diagnosis. While based on a limited sample, these findings suggest a higher prevalence of medication misuse (approximately 50%) than reported in recent studies of the general population (approximately 20%).⁴⁵ Given the observed link between benzodiazepine abuse and increased suicide risk,^{46,47} the findings of this study highlight the vulnerability of veterinarians, particularly considering the potential for self-prescription. Preventive measures, including comprehensive education and support programmes, should be a priority, starting during veterinary training. The findings demonstrate the need for targeted interventions among younger veterinary professionals, particularly considering the high rates of non-prescribed anxiolytic use observed in this age group in previous studies.⁴⁸ To our knowledge, this study represents the first exploration of anxiolytic use within the veterinary profession.

While our study had a smaller number of participants ($n = 141$) than other national studies ($n = 282$), the response rate as a percentage of the total potential participants was higher in our study (13.2% vs. 7.1%).¹³ However, the larger studies were conducted at a national level (e.g., Chile or Canada), allowing for a larger pool of potential participants.^{43,49} Selection bias may have influenced participant demographics, as individuals with stronger feelings towards the study's themes might be more inclined to participate. The healthy worker effect, another form of selection bias, may have resulted in underestimates of burnout, depression and anxiety, as individuals who left the profession due to these outcomes were not included in the study. It is important to note that the observed sex differences may be biased by men's lower likelihood of reporting symptoms or seeking help.⁵⁰ The cross-sectional design of this study limits the possibility to draw conclusions about the temporal dynamics of burnout. As such, the findings provide a snapshot of burnout at a single point in time and cannot be used to infer causal relationships or make generalisations about long-term trends. Despite a satisfactory participation rate, the sample size limits the generalisability of findings to the entire veterinary community. Nonetheless, the similarity of our results to existing literature suggests comparable trends. The use of two validated scales to assess burnout and self-compassion significantly enhances the reliability and validity of the present findings, representing a major strength of this study. Moreover, this study consti-

tutes a pioneering effort to assess burnout among Canarian veterinarians, informing the development of future intervention strategies.

CONCLUSIONS

This cross-sectional study examined burnout, self-compassion and anxiety/depression among 13.2% of the veterinarians registered with the College of Veterinarians of Las Palmas (Spain). Exhaustion and cynicism levels exceeded normative values, while professional efficacy was diminished. Burnout was associated with demographic factors, including urban environments, younger age and less veterinary experience. Self-compassion was negatively correlated with exhaustion and cynicism, while self-judgment, isolation and overidentification positively correlated with burnout symptoms. Approximately 20% of participants reported a diagnosis of anxiety/depression, with an additional 32% perceiving a need for treatment. Treatment needs were higher among women, younger veterinarians and those in urban settings. Anxiety/depression was associated with higher rates of burnout and less self-compassion, while benzodiazepine use was associated with increased burnout. These findings underscore the urgent need for interventions to address the complex interplay of burnout, mental health and demographic factors within the veterinary profession.

AUTHOR CONTRIBUTIONS

Methodology, investigation, data curation and writing—review and editing: Indira Hernández-Esteve. *Conceptualisation, investigation, supervision and writing—review and editing:* Manuel Zumbado. *Conceptualisation, methodology, formal analysis, writing—original draft, supervision and project administration:* Luis Alberto Henríquez-Hernández.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

Data are available upon request from the authors.

ETHICS STATEMENT

The present study is based on an anonymous survey. No personal data allowing individual identification has been collected. The present study has no commercial interest, and the data will not be used for any purpose other than this specific scientific research. According to all of the above, and in accordance with current legislation in Spain (Ley Orgánica 3/2018, de

5 de diciembre, de Protección de Datos Personales y garantía de los derechos digitales [LOPDGDD]), ethical approval by an Ethics Committee was not required for this study. The authors have adhered to codes of good ethical practice in science.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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