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Work-life balance is essential to reducing burnout, improving well-being

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OBJECTIVE

To assess levels of burnout, well-being, and mental health of veterinarians and compare them to those of nonveterinarians by use of validated instruments, and to identify the predictive values of techniques individuals can use to help reduce burnout and/or improve well-being and mental health.

SAMPLE

An online survey of 4,636 veterinarians from a random sample of 40,000 US veterinarians provided by the AVMA.

METHODS

The study was fielded from September 11 to October 9, 2023.

RESULTS

Burnout and well-being of veterinarians were generally consistent with that of employed US adults. Serious psychological distress was more common among veterinarians than in the general population. Veterinarians on average were more likely to score higher in neuroticism than nonveterinarians, and neuroticism was a predictor of low well-being, poor mental health, and burnout. Work-life balance, an effective coping mechanism for stress, and working in a positive clinic culture were among the significant factors that predicted good well-being and mental health and reduced burnout.

CLINICAL RELEVANCE

The higher percentage than the norm of veterinarians with serious psychological distress was a concern. Focusing on maintaining a good work-life balance and adopting a reliable coping mechanism can potentially help reduce distress. Veterinary medicine is an inherently stressful profession. The purpose of this study was to identify key factors that contribute to burnout, well-being, and mental health and to determine what behaviors and management techniques help reduce stress and burnout and contribute to well-being and mental health, thus improving job satisfaction and personal fulfillment.

Well-being and mental health have long been concerns in the veterinary profession. In 2017, the authors set out to determine the status of well-being and mental health among a representative sample of veterinarians using academically validated instruments.[1]

The team has built on that knowledge with similar, biennial surveys. Burnout was added as a key metric in the 2019 study.[2] Just as importantly, the studies have focused on identifying individual behaviors and management techniques that are predictive of—that is, associated with—higher levels of well-being and lower levels of burnout and serious psychological distress.

This study is the fourth in the series. The research has been sponsored by Merck Animal Health, Rahway, NJ, a supplier of vaccines, pharmaceuticals, and digital technology to the veterinary profession.

While it is important to know the mental health, burnout, and well-being status of veterinarians, it is also useful to understand how the scores of veterinarians are similar to or different from the scores of nonveterinarians who have completed surveys using the same instruments. This can provide perspective on the likelihood that various characteristics may be similar to or different from nonveterinarians. Characteristics that appear to be unique to veterinarians may warrant specific attention within the profession. Consequently, the research team has sought to identify instruments that are academically validated and used in other population-based studies. The aim of this study was to provide insights into how veterinarians compare to their nonveterinarian peers on many characteristics as well as to identify key factors that might influence mental health and well-being among veterinarians.

Methods

Survey

An anonymous online survey was distributed to a random sample of 40,000 US veterinarians, both practitioners and nonpractitioners, provided by the AVMA. Prior to distribution, an email from the AVMA was sent to the sample alerting them to the upcoming survey and encouraging them to participate. A large sample was desired to enable detailed analysis of subgroups. Three reminders were sent. The study was in the field from September 11 to October 9, 2023. The questionnaires and research protocol were submitted to the Advarra Institutional Review Board, Columbia, Maryland, for review and received a letter of exemption.[3]

Respondents were asked to complete several instruments and questions for the measurement of mental health, well-being, and burnout. Instruments used included the following:

Kessler 6—As in earlier studies, mental health was assessed with the Kessler Psychological Distress Scale,[4] a survey instrument that determines whether a respondent is suffering from serious psychological distress. Respondents assigned a numeric score ranging from 0 (none of the time) to 4 (all of the time) to 6 items. The standard criterion for the presence of severe psychological stress, a sum score of 13 or higher, was used to determine the presence or absence of severe psychological distress.

Well-Being Index—Well-being is a measure of happiness or satisfaction with one's life. Well-being was evaluated with an index based on 3 questions widely used to measure well-being[5,6] and scored on a scale from 0 to 10. Respondents were subsequently categorized as flourishing (scores of 7 to 10), getting by (scores of 4 to 6), or suffering (scores of 0 to 3).

Burnout Assessment Tool—Burnout seems to be a universal complaint.[7] Burnout is a state of physical, emotional, or mental exhaustion resulting from prolonged stress. The 2 prior studies used a simple 7-question, yes/no device developed for use with physicians by researchers at the Mayo Clinic.[8] The current study used the Burnout Assessment Tool (BAT)[9] developed by European researchers. It provides much more granular insights into burnout and has been validated in several studies around the globe. The BAT not only provides an overall score for burnout, it also measures component factors including cognitive impairment, emotional impairment, exhaustion, and mental distance. Fortuitously, McKinsey & Company, a management consulting firm, conducted a global study[10] of burnout using the BAT that provided robust reference data on the general population.

Big Five personality assessment—The 2017 study included an assessment of respondents on the Big Five personality traits: neuroticism, extroversion, agreeableness, openness, and conscientiousness.[11] Extroversion and especially neuroticism are the 2 personality characteristics most associated with well-being. Persons with elevated levels of neuroticism respond poorly to environmental stress, interpret ordinary situations as threatening, and can experience minor frustrations as hopelessly overwhelming.[12] Both extraversion and neuroticism were measured in the present study. Big Five personality trait scores of veterinarians were compared to scores of the general population of US employed adults as measured in the 2016 Panel Study of Income Dynamics.[13]

In addition, the survey asked detailed questions about demographics, job satisfaction, work environment, attitudes about the veterinary profession, the availability of Employee Assistance Programs (EAPs) and insurance coverage for mental health treatment, attitudes toward mental health treatment, and a variety of other related questions. An EAP is a program that helps assist employees with personal and/or work-related problems that may impact their job performance, physical or mental health, or emotional well-being.

Statistical analysis

Multiple regression analysis was performed to identify which of all surveyed attributes were the most predictive (ie, largest measures of association) with high levels of well-being (ie, with flourishing), serious psychological distress, and high levels of burnout. The same predictor variables were used for all outcome measures.

Standard demographic variables were included to control for them. In addition, age, gender, income, student debt, and other effects helped provide a broader understanding of the problems facing the profession and which segments were most affected. They were included to understand their relationship to problems in the veterinary profession. Personality variables were included because it is well-known that they predict well-being and could be confounded with other predictor variables (eg, neuroticism could lead to lower income). The remaining predictor variables were included to examine how various aspects of veterinarians' lives influence their well-being and mental health. Many of these predictors were included in the survey because they showed significant effects in previous surveys or were selected to examine the influence of newly suggested factors (eg, coping strategies).

Regressions were based on percentile of maximum possible score.[14] Each predictor variable was scored from 0 = lowest possible value to 1 = highest possible value. This scoring allowed use of regression coefficients as a measure of effect sizes for measures with different units of measurement. Results were interpreted in terms of the strength of effect sizes, with a focus on effect sizes that were statistically significant at the conventional level of significance ($P < .01$). Most of the stronger effects were significant using a higher standard of significance ($P < .001$). Multiple regression coefficients are signified with the symbol b.

Respondents

During the survey period, a net of 4,636 sets of usable responses were collected from veterinarians, representing a response rate of 11.6%. This response rate was consistent with other contemporary surveys conducted by both the AVMA and Brakke Consulting. Responses were weighted on the basis of age, gender, and region of residence to ensure that respondents were representative of US working veterinarians. A limitation of the study was that we did not have information about other characteristics that might have differed between respondents and nonresponders. The statistical margin of error at the 95% CI was ± 1.4%.

Results

In this study, when presented a list of 14 issues that may potentially concern veterinarians, 2 of the 3 most critical issues facing the profession identified by respondents were the following:
• Stress levels of veterinarians and support staff (72% [3,310/4,615] rated "critically important")

• Suicide rate among veterinarians (70% [3,154/4,504] rated "critically important")

The third was shortage of qualified support staff (71% [3,265/4,582] rated "critically important"). This was consistent with previous studies.[15]

Burnout

Results of the present study indicated that 82% (3,781/4,634) of veterinarians had low to medium burnout compared to 84% of adults in the US general population.[10] High and very high burnout was 18% (854/4,634) and 16%, respectively. Interestingly, when examining the types of burnout, veterinarians scored significantly higher in exhaustion than in cognitive or emotional impairment and mental distance **(Figure 1)**.

There were noticeable variations among respondents. Burnout levels were highest in companion animal veterinarians (20% [679/3,377] high/very high) and lowest in food animal veterinarians (8% [8/93] high/very high). Younger veterinarians experienced higher levels of burnout (26% [274/1,064] of those < 35 years of age had high/very high burnout) than older veterinarians (13% [120/962] of those 55 to 64 years of age had high/very high burnout). Analyses with all waves suggested that this is a cohort/generation effect rather than an age effect.

Interestingly, the key predictor of high burnout was personality—those who scored higher in neuroticism ($b = 0.22$)—followed by those experiencing a negative work environment ($b = 0.04$) or who had a history of mental health challenges ($b = 0.04$). Neuroticism is a core personality trait associated with anxiety and negative emotions. Key predictors of lower levels of burnout included good work-life balance ($b = -0.15$), followed by pride in work
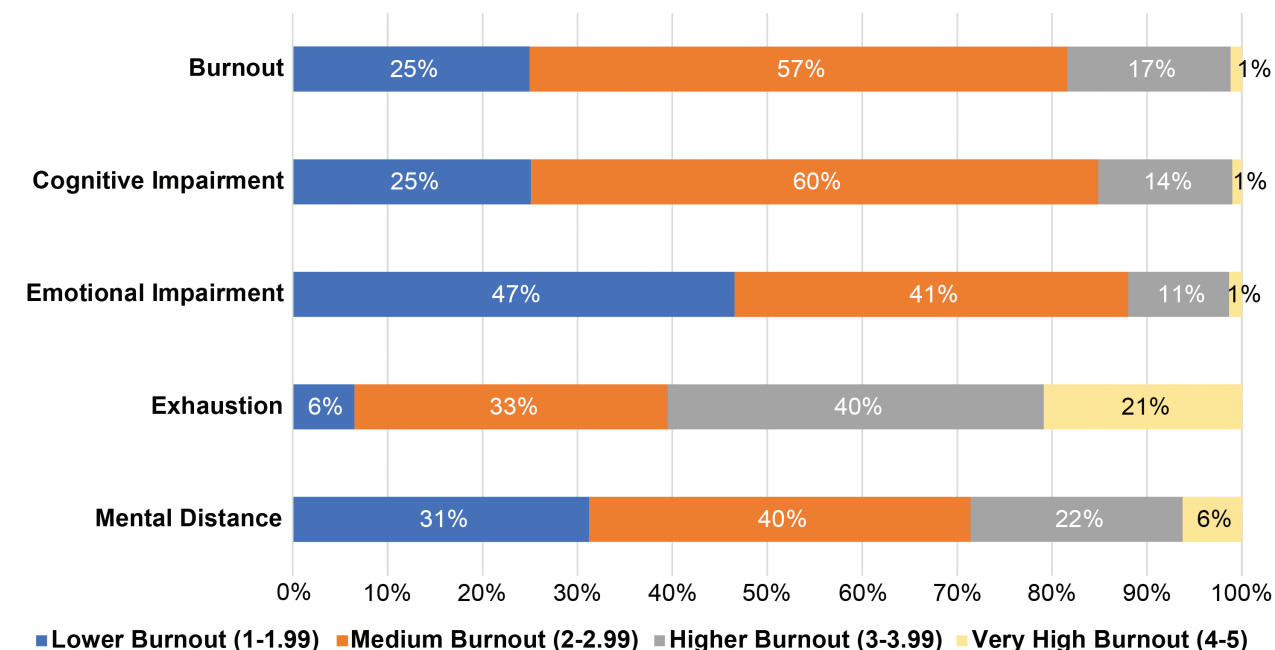
Figure 1—In a survey of 4,636 US veterinarians conducted from September 11 to October 9, 2023, the percentages of veterinarians who scored low (1 to 1.99), medium (2 to 2.99), high (3 to 3.99), or very high (4 to 5) in measures of overall burnout using the Burnout Assessment Tool, as well as scores for components of burnout: cognitive impairment, emotional impairment, exhaustion, and mental distance.

(b = −0.12) and feeling that work makes an important contribution to other people's lives (b = −0.09).

Well-being

Nearly 54% (2,501/4,636) of veterinarian respondents were flourishing and only 10% (473/4,636) suffering. The remainder, 36% (1,662/4,636), were getting by. The mean score for veterinarians was 7, which is consistent with the US adult population.[16]

Again, there were differences by cohort/generation (59.8% [576/962] of veterinarians 55 to 64 years old were flourishing vs 44.4% [473/1,064] of those < 35 years old), gender (61.3% [928/1,512] of men were flourishing vs 50.7% [1,548/3,051] of women), and marital status (59.6% [1,969/3,305] of married veterinarians were flourishing vs 37.1% [362/976] of single veterinarians and 48.0% [164/342] of those who were widowed, divorced, or separated). Student debt was also a factor: the more student debt owed the lower the well-being score. Working with a financial advisor was a positive predictor of well-being.

Once again, a personality high in neuroticism was the key predictor of low well-being (b = −0.09), followed by age (younger veterinarians had lower mean well-being than older veterinarians; b = −0.06). Key predictors of high well-being were work-life balance (b = 0.24), having positive coping strategies to handle stress (b = 0.11), and being satisfied with one's professional position (b = 0.11).

Mental health

In the current study, 10% (463/4,625) of veterinarians suffered from serious psychological distress.

In a comprehensive national survey[17] conducted by the US government, 6.3% (1,197/18,592) of employed, college-educated US adults 25 years of age or older suffered from serious psychological distress.

Again, birth year was a factor here. Analyses across survey waves suggested that this effect reflected cohort/generation differences rather than age effects per se. The older the cohort, the lower the percentage of those suffering from serious psychological distress **(Figure 2)**.

Serious psychological distress was twice as common among companion animal and equine veterinarians—and even nonpractitioners—than food animal veterinarians and those in mixed practice.

The predominant predictor of serious psychological distress was a personality high in neuroticism (b = 0.38). The key predictors of lack of serious psychological distress were good work-life balance (b = −0.10), satisfaction with position (b = −0.08), and having an effective mechanism for coping with stress (b = −0.06).

While veterinarians were slightly more likely to have ever had suicidal thoughts compared to the general population (6.7% [311/4,636] vs 4.5% [858/18,827]), there was no statistical difference in ever having attempted suicide.[17]

Comparing the current study to prior waves showed that there has been positive change in attitude toward mental health. In this study, 73% (3,340/4,603) of respondents agreed with the statement, "mental health treatment helps veterinarians lead better lives," compared to 69% (1,967/2,868) in 2019.[2] The percentage of veterinarians seeking
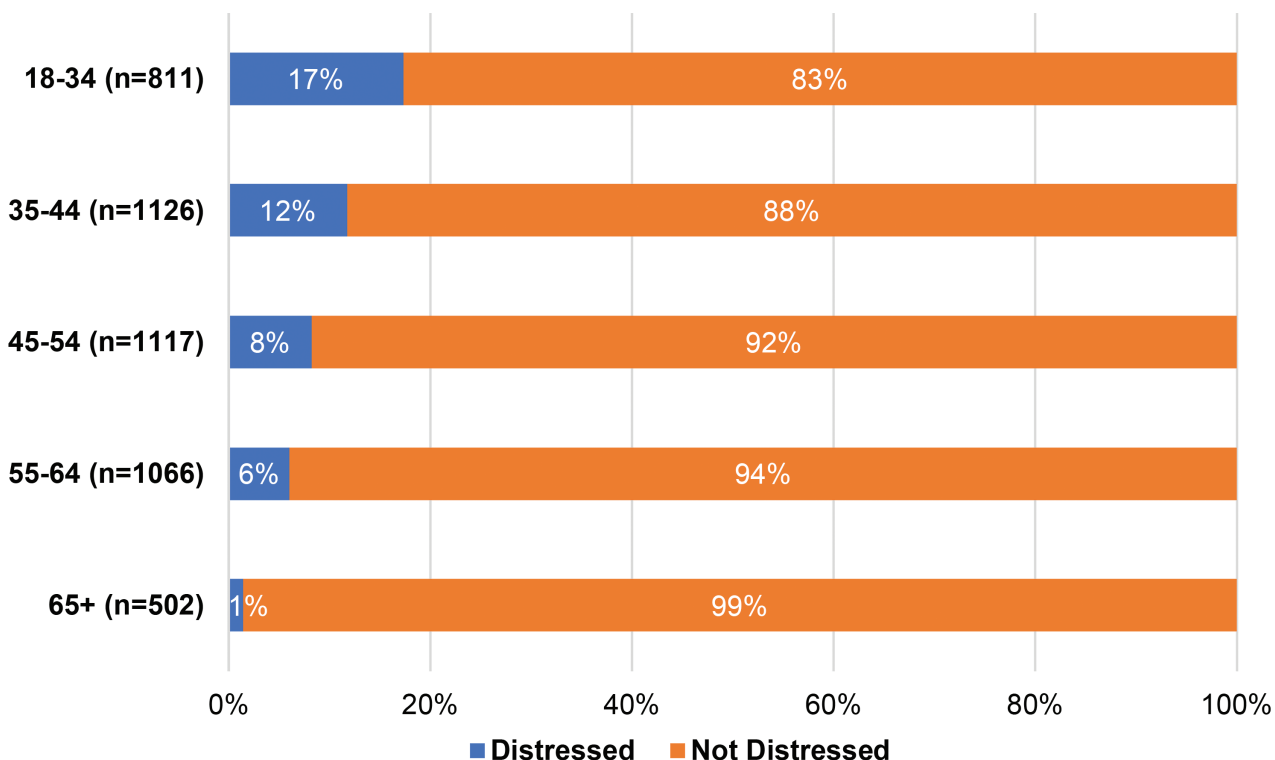
Figure 2—In the survey conducted from September 11 to October 9, 2023, the percentages of 4,623 veterinarians who were found to suffer from serious psychological distress by age category, based on a score of 13 or more on the Kessler 6 Psychological Distress Scale.

treatment for mental health issues had increased from 15% (439/2,874) in 2019 to 25% (1,132/4,595) in the present study.

The percentage of practitioners who reported access to EAPs increased from 21% (757/3,540) to 38% (1,763/4,631) compared to the 2017 study.[1] In the current study, 52% (2,415/4,623) said their health insurance program covered mental health treatment compared to 44% (1,037/2,374) in 2019[2]; 38% (1,736/4,623) did not know whether their insurance provided mental health treatment.

Work-life balance

As referenced above, multiple regression analysis indicated that work-life balance was found to be the leading predictor of lower burnout, higher well-being, and good mental health. Strategies for work-life balance may differ by individual, but respondents who said they socialized with friends, spent time with family, or exercised frequently had much less burnout than those who seldom did those activities. Those who routinely slept 8 hours per night also reported much lower burnout. The current study found that veterinarians who were flourishing more frequently socialized with friends and family **(Figure 3)**.

Coping mechanisms

This study demonstrated that having an effective coping mechanism for managing stress was predictive for better well-being. Respondents who felt they had an effective coping mechanism for stress were far less likely to have serious psychological distress than those who did not have effective coping strategies **(Figure 4)**.

Participants self-reported which coping mechanisms they leveraged. Several techniques correlated positively with absence of serious psychological distress were the following:

- I take comfort in the belief that problems will work themselves out.
- I accept the situation without getting caught up in the emotions.
- I distract myself with TV or computer games.
- I take care of problems that cause stress.
- I make changes to my life to reduce stress.

The following technique had a negative correlation: I try to forget about it and hope it goes away.

Clinic culture

The current study showed that work environment likely contributed to the well-being and mental health of employees. Clinic culture was a predictor of higher well-being ($b = 0.02$) and lower burnout ($b = -0.06$). The attributes that defined a positive culture were as follows: (1) strong sense of belonging to a team, (2) high degree of trust in the organization, (3) candid and open communication, and (4) sufficient time for high-quality patient care. While a majority of respondents indicated that each of these attributes described their practice to at least some extent, less than half said the attributes described their practices "to a great extent." Only 35% (1,270/3,663) agreed
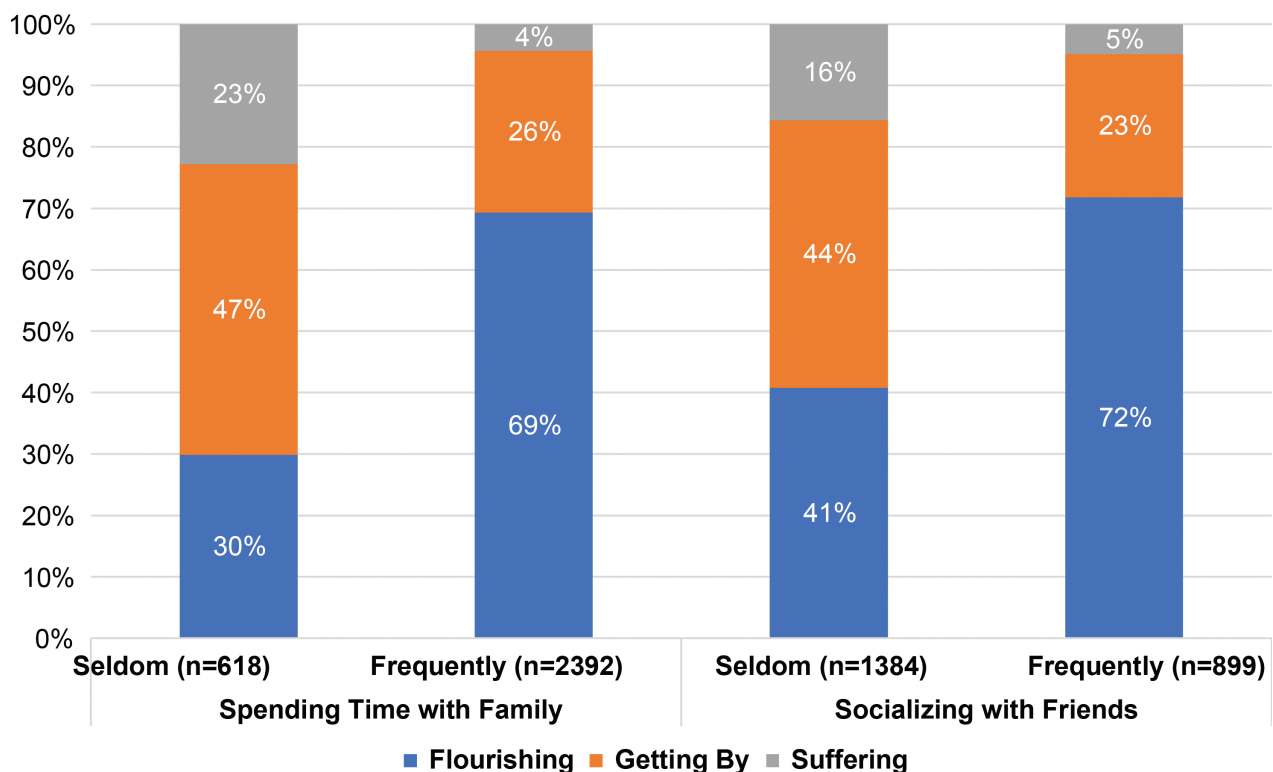

Figure 3—Percentages of veterinarians in the survey who spent time with family seldom versus frequently or socialized with friends seldom versus frequently who were flourishing (score of 7 to 10), getting by (4 to 6), or suffering (0 to 3) on the well-being scale.
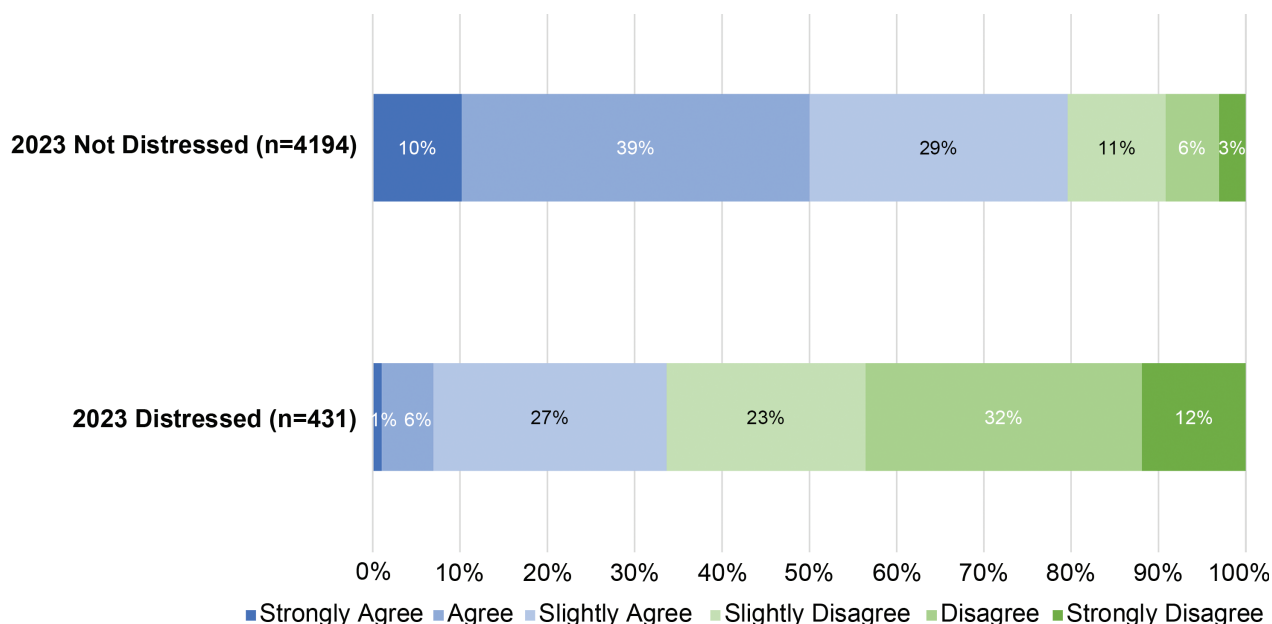
Figure 4—Percentages of veterinarians in the survey with serious psychological distress (who scored 13 or more on the Kessler Psychological Distress Scale) and without serious psychological distress who agreed or disagreed that they had a healthy mechanism for coping with stress.
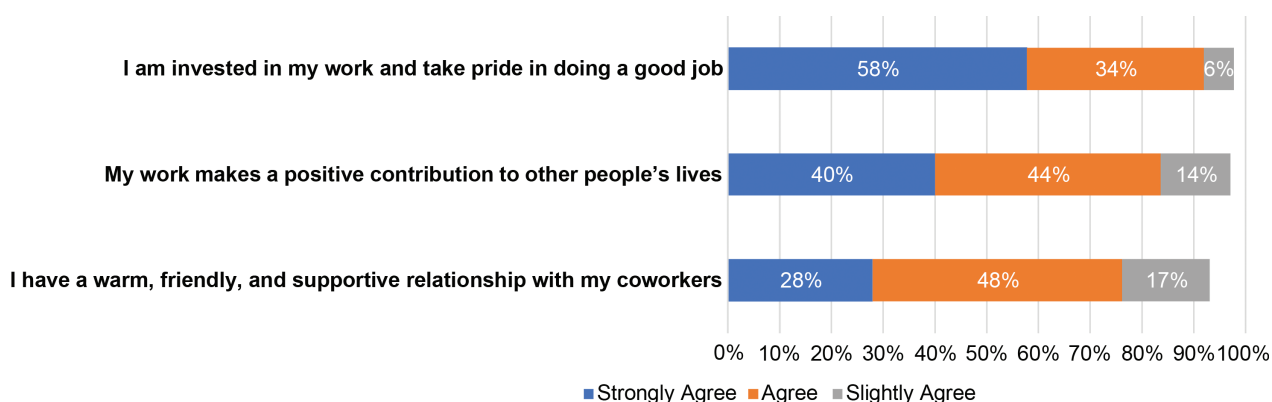
Figure 5—Levels of agreement by 4,636 veterinarians surveyed from September 11 to October 9, 2023, on the 3 highest-scoring of 13 job dimensions.

"to a great extent" that there was "open and candid communication among team members."

Job satisfaction

In the current study, 56% (2,590/4,633) of veterinarians were very or extremely satisfied with their job.

When including those who responded, "somewhat satisfied," > 75% (4,414/4,633) of veterinarians were satisfied with their work overall. When asked their perception of other veterinarians' satisfaction, only 43% (2,031/4,624) perceived that their peers were satisfied.

As with other attributes in this study, job satisfaction was age related and multiwave analyses suggested that this is a cohort/generation effect. Older veterinarians had the highest level of satisfaction (55 to 64 years old, 66% [632/962] very/extremely satisfied) and younger veterinarians had the lowest (< 35 years old, 47% [505/1,064] very/extremely satisfied).

When asked to rate 14 different dimensions of their work, the 3 attributes that scored highest spoke to the intrinsic values veterinarians associate with their profession **(Figure 5)**.

There was evidence that veterinarians' work environments had improved since 2021. Compared to previous studies, mean incomes had increased and mean hours worked per week had decreased. Further, when asked whether they planned to leave the profession within the next 2 years, of those < 55 years old, only ≤ 3% (54/2,601) said they were "very likely" to leave the profession.

Discussion

The present study showed that the majority of veterinarians felt that their work plays an important role in society and they were strongly invested in doing it well. More veterinarians are satisfied with their

jobs compared to the workers in the general population. In a recent broad-based study[18] of employed US adults by Pew research, 51% of employed adults in the general population were very or extremely satisfied with their job.

The authors found it surprising that there was such a disconnect between the level of job satisfaction veterinarians felt and their more negative perception of how their peers felt. Could there be a culture of negativity at veterinarian gatherings that feeds on itself? Or, given the recent increase in demand for veterinary services and resulting stress, perhaps some assumed their peers were somehow less resilient.

The study showed that 1 in 10 veterinarians is suffering from serious psychological distress and the prevalence of psychological distress is more common among younger veterinarians. This finding suggests that veterinary medicine faces challenges to reducing the risk of burnout among veterinarians who are at the beginning of their career. It is clear that establishing oneself in the career has its challenges and the personality profile and high student debt make it even more difficult for younger generations to cope with those challenges.

One of the important outcomes of this study was the recognition that there are many individuals who were not flourishing. Many individuals were suffering from high burnout; 10% were suffering from serious psychological distress. The group of individuals that were experiencing the highest rates of burnout and serious psychological distress and lowest levels of well-being were younger veterinarians.

Veterinary medicine is inherently stressful. The leading predictor of burnout, serious psychological distress, and low well-being was a personality high in neuroticism. While one cannot change their fundamental personality characteristics, individuals can take steps to minimize and cope with stress. This study demonstrated that having an effective coping mechanism for dealing with stress was one of the key predictors of mental health and high well-being. Stress management strategies are often unique to the individual, so it becomes important for veterinary professionals to identify which coping strategies may work best for them.

Another challenge is financial stress. Much has been written about the high levels of student debt confronting early-career veterinarians. This study indicated the value of working with a financial advisor. Simply put, those who worked with a financial advisor, regardless of age, were less likely to suffer from serious psychological distress than those who do not have the benefit of a financial adviser.

Not enough can be said about the importance of work-life balance. The value of good work-life balance permeates the findings of all 4 of the Merck Animal Health Veterinary Wellbeing Studies. Work-life balance is the number one predictor of high levels of well-being, low burnout, and good mental health. Dealing with sick and injured animals, emotionally fraught clients, and personal and professional financial pressures can be intense. Making and taking time for wholesome and pleasurable experiences is as critical to success in veterinary medicine as mastering the latest diagnostic procedures. Research shows that socializing with family and friends is especially important to a well-balanced life.[19]

There is also an opportunity for employers to improve psychological safety for team members. When asked whether their practice openly discussed well-being and mental health in team meetings, nearly two-thirds said either "not at all" (36% [1,252/3,476]) or "a little" (28% [964/3,476]). Periodic discussion and occasionally inviting mental health professionals to discuss local resources available could help reduce stigma for those needing assistance. More practices can make resources such as insurance coverage for mental health treatment and EAPs available. Fostering a positive clinic culture is important as well and no doubt especially important to those in the early stages of their career.

This study, and the ones that came before it, provide a solid roadmap for understanding the factors contributing to poor well-being, burnout, and serious psychological distress, as well as the approaches individuals and employers can deploy to reduce burnout and serious psychological distress and increase the number of veterinarians who are truly flourishing.

Acknowledgments

Disclosures

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