



## ORIGINAL ARTICLE

# A taxonomy of occupational and organisational stressors and protectors of mental health reported by veterinary professionals in Australasia

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**Aim** To develop a taxonomy of positive and negative occupational and organisational factors reported that impact the mental health of veterinary professionals.

**Methods** Veterinary professionals working in Australasia were surveyed between February and June of 2021. The survey comprised two questions related to participants' perceptions of the positive and negative aspects of their job role that impact their mental health and wellbeing. Reflexive thematic analysis was employed to analyse the responses and generate two taxonomies of occupational and organisation stressors and protectors reported by participants.

**Results** Fifty-three responses from veterinary professionals were analysed. The final stressor taxonomy generated contained 9 overarching themes and 36 subthemes. The most common of these were negative work conditions, challenging relationships with clients, and adverse events and patient outcomes. The taxonomy of protectors contained 11 overarching themes and 32 subthemes, with the most common including fulfillment and satisfaction, positive work conditions, and relationships with colleagues.

**Conclusion** This study is the first to examine both positive and negative factors in the veterinary industry reported by veterinary professionals in Australasia. The results highlighted stressors that can be addressed on both an individual and organisational level to promote the mental and health well-being of professionals working in the animal care industry.

**Keywords** occupational mental health; positive psychology; qualitative study; reflexive thematic analysis; veterinary industry; veterinary professionals; wellbeing

Aust Vet J 2022

doi: 10.1111/avj.13167

Researchers have identified professionals working in the veterinary industry as a population vulnerable to poor psychological outcomes ranging from reduced well-being to severe psychopathology.<sup>1</sup> Veterinarians report higher rates of mental ill-health than their respective general populations in North America,

Europe and Australia.<sup>2-4</sup> Also alarming are elevated rates of suicidal ideation, attempts and completed suicides in this profession.<sup>5</sup> Suicide risk was found to be up to seven times higher than the general population in a sample of German veterinarians,<sup>3</sup> with similarly elevated rates reported in other international populations.<sup>6</sup> Suicide rates of Australian veterinarians have been estimated to be up to four times higher than that of the general population (52 per 100,000 vs. 13 per 100,000 respectively).<sup>5</sup> Veterinary support staff, including veterinary nurses and technicians, have also been identified as being highly susceptible to psychopathological symptoms such as burnout.<sup>7</sup> Although fewer studies have been conducted with veterinary support populations than with veterinarians, this finding is unsurprising given the similarities between the professions regarding shared exposure to work demands and strains.

In response to the severity and frequency of psychopathology experienced in this population, researchers have turned to identify factors contributing to these outcomes. Various occupational (i.e., specific to the veterinary industry) and organisational (i.e., working conditions and psychosocial issues common across other industries) stressors have been proposed to adversely impact the mental health of veterinary professionals.

Animal euthanasia is one of the most researched of these proposed stressors, suggested to contribute to poor mental health outcomes, including depression and substance use.<sup>8, 9</sup> This, in addition to access to means (i.e., lethal drugs, firearms), could clarify why veterinarians have significantly higher suicide rates than their non-veterinary medical professional counterparts.<sup>10</sup> Other cited veterinary stressors are the interpersonal demands involved in animal care such as the emotional toll of supporting clients as they grieve their companion animals.<sup>11</sup> Client interactions were the most frequently reported stressor in a sample of Belgian veterinarians, highlighting conflicts about payment and lack of respect are frequently experienced in the industry.<sup>12</sup> Organisational stressors encountered by veterinary professionals include long working hours, low remuneration and poor work-life balance resulting from heavy workloads.<sup>13, 14</sup> As such, working in this industry presents a range of challenges with the potential to negatively impact wellbeing and performance, experienced alongside increased demand for animal care services in the community.

The evidence base examining mental health in the animal care industry has predominantly been in a pathogenic paradigm. The

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existing literature regarding positive veterinary well-being has been described as a 'shallow exploration' in comparison to the examination of mental ill-health.<sup>15</sup> (p.100) However, the field of occupational mental health has seen an emerging emphasis on identifying not only job-related stressors but also protective factors that buffer against these stressors. Adopting a salutogenic paradigm - one that focuses on factors that preserve positive health and wellbeing - is particularly appropriate when examining populations whose occupational stressors are unfeasible to avoid or be eradicated. For example, many of the reported stressors faced by veterinary professionals are largely inherent in their roles (e.g., performing euthanasia, engaging with distressed clients). Therefore, it is important to clarify the detrimental aspects of veterinary work in parallel with the identification of protectors that may inhibit the onset or severity of psychopathology.

However, positive mental health (flourishing) goes beyond merely the absence of psychopathology.<sup>16</sup> Despite the domination of pathogenic studies in the current evidence base, hedonic (i.e. eliciting pleasure and happiness) and eudemonic (i.e. providing a sense of meaning and fulfillment) experiences have also been reported by veterinary professionals.<sup>17</sup> For example, most participants in a longitudinal study of veterinarians recounted experiencing more positive than negative aspects of their job.<sup>18</sup> Unsurprisingly, working with animals is a central motivating factor for many veterinary students to enter the industry, in addition to being a source of pleasure in practicing professionals.<sup>17, 19</sup> Professionals report deriving satisfaction from client relations, despite being a frequently reported source of stress and compassion fatigue.<sup>20, 21</sup> Other commonly reported factors that enhance mental health include relationships with colleagues,<sup>17, 22</sup> and the intellectual challenge of the profession.<sup>23</sup> In contrast with these individual-level factors, few factors have been investigated and identified at an organisational level. This imbalance may evidence the burden of occupational mental health being placed solely on the individual, despite evidence that both individual and organisational factors play a contributing role.<sup>24</sup> As such, research designs that can integrate hedonic, eudemonic and protective factors on both an individual and organisational level are needed for the development of effective prevention and intervention for veterinary professionals.

Prior research examining stressors and protectors in the veterinary industry has primarily used deductive methodologies, asking participants to examine a list of predetermined factors generated by researchers. Deductively generated taxonomies risk precluding the disclosure of heterogeneous experiences that may not be recognised in the literature yet. This is particularly relevant in the current occupational climate since the emergence of the COVID-19 pandemic, which significantly altered policy and operation of the veterinary sector (e.g., restricted border travel for professionals working interstate; social distancing and lockdowns necessitating carpark assessments and distanced interactions with clients).<sup>25</sup> It is possible that pandemic-related events have changed perceptions of occupational stressors and protectors for personnel. Employing inductive assessment methods such as open-ended questions (as opposed to predetermined factors for participants to view and endorse) can support a richer understanding of population experiences.

Another limitation of existing research in this area is the experiences of veterinary support staff being overlooked. Despite often working closely alongside veterinarians and being exposed to the same organisational and occupational stressors, veterinary nurses and technicians have seldom been the focus of occupational health research.<sup>7, 26</sup>

### ***Aim of the present study***

The present study aimed to develop a taxonomy of factors that both negatively and positively impact the mental health and wellbeing of veterinary professionals working in Australasia via a qualitative exploration of their lived experiences.

## Materials and methods

### ***Participants and procedure***

A study invitation was emailed for internal distribution to 215 veterinary practices and organisations across Australia and New Zealand. These were identified through an online search of currently operational veterinary care providers in both countries. Organisations were randomly selected from those who provided an email address or web inquiry form to send the study information and invitation. Eligibility for participation included being over 18 years of age, currently residing and practising as a veterinarian, veterinary nurse or veterinary technician in Australia or New Zealand and having done so for at least the past year. As the invitation was internally distributed, a response rate could not be calculated. Participants had access to the survey between February and June of 2021. The final response total was 53 veterinary professionals, one of which was excluded due to providing responses that, due to the absence of sufficiently detailed information, could not be coded. Ethical approval was granted by the Tasmania Social Sciences Human Research Ethics Committee (S0023759).

### ***Survey***

Participants were provided with an information sheet outlining the aims, potential risks and benefits of the study via an online survey platform. Given that research examining mental health holds the potential to elicit discomfort or distress in participants, mental health supports available to veterinary professionals in both Australia and New Zealand were also provided.

The survey included two questions. Participants were asked to 'Please list the factors you consider most stressful about your role as a veterinary professional' and 'Please list the factors you consider to have a positive impact on your mental health and wellbeing in your role as a veterinary professional'. Demographic data were not collected from participants. To provide for a diverse range of experiences to be reported in this population, no restraints were placed on the number of stressors reported, response length, or what was considered a stressor or protector. This allowed participants to freely identify factors they consider to be threatening and preserve their wellbeing. Following completion of the survey, participants were given the option to enter a prize draw to receive a \$50 gift card in return for their participation.

### Qualitative data analysis

An inductive approach was employed for analysis to address the limitations of the deductive methodology predominantly used in this research area. Responses were analysed and coded according to the stages of reflexive thematic analysis outlined as best practice by Braun and Clarke.<sup>27</sup> The organic nature of reflexive thematic analysis has been deemed inconsistent with the commonplace concept of qualitative data saturation in determining sample size.<sup>28</sup> The methodology instead emphasises meaningful engagement with the data and the relevance of the information to the identified study objectives. The concept of 'informational power' has been proposed as a means of this appraisal.<sup>29</sup> Five established domains comparing the relevance of the data to the study aims are used as a guide to indicate when data collection can cease. These domains (study aim, sample specificity, use of established theory, quality of dialogue, and analysis strategy) were reviewed iteratively throughout the collection and analysis process. Reflexive thematic analysis was chosen with the aim to maximise the richness of data extracted and address existing criticisms of qualitative analysis being unreproducible and lacking methodological rigour.<sup>30</sup> The approach emphasises transparency of the analytical process and actively acknowledges the risk of bias carried by thematic analysis methodology.

Survey responses were manually transcribed from the survey platform into qualitative data analysis software (NVivo). Annotations and preliminary codes were generated for each data point by the first-named author based on keywords and topics. The preliminary codes for each response were reviewed and prospective themes and subthemes were generated based on similarity and overlap of code content. Where necessary, sub-subthemes were generated within subthemes. These were reviewed and revised several times by all authors to ensure all data within themes was meaningfully homogenous and each theme, subtheme and sub-subtheme were sufficiently distinct. This process was completed for both stressor and protector data. Owing to the ambiguity of information given, 14 data points across 11 participants were not able to be meaningfully coded and were excluded from the analysis.

## Results

A three-tiered model was adopted for the completed taxonomy to minimise modification of responses and reflect the heterogeneity of experiences in this population. This approach involved all included data coded into at least one primary theme. If warranted, the data was also coded into a subtheme or sub-subtheme.

### Stressor taxonomy

The finalised stressor taxonomy contained 9 themes, 36 subthemes and 21 sub-subthemes (full taxonomy of stressors with example responses in Table 1). The most frequently reported stressors related to the following themes (in order) *Work Conditions*, *Challenging Relationships with Clients*, and *Adverse Events and Patient Outcomes*. The most frequently reported subthemes included *Working Hours*, *Staffing and Remuneration* and sub-subthemes included *Insufficient*

*Staffing*, *Expected and Unpaid Overtime*, and *Poor Work-Life Balance*.

### Protector taxonomy

The final protector taxonomy contained 11 themes, 32 subthemes and 1 sub-subtheme (Table 2). In order, the most frequently reported protectors related to themes of *Fulfillment and Satisfaction*, *Positive Work Conditions and Relationships with Colleagues*. The most frequently reported subthemes were *Successful Cases*; *Flexible Working Arrangements* and *Appreciative Clients*, and the single sub-subtheme was *Competent Team Members*.

## Discussion

The results of the taxonomy reflect a mixture of themes that were considered by respondents to be solely an occupational/organisational *stressor* (e.g., adverse events and patient outcomes) or *protector* (e.g., working with animals), and themes considered to be both (e.g., relationships with clients).

*Work conditions.* Factors related to working conditions were the most frequently reported stressors impacting respondents. Working hours, staffing, work-life spillover and heavy workloads were among the top five subthemes reported. This parallels earlier research findings of long and unpredictable work hours to be significantly contributing to employee distress.<sup>31</sup> Being on call and working outside normal business hours was found to undermine social relationships in a previous sample of Australian veterinarians<sup>31</sup> and long hours/work overload have been reported by US veterinarians as the most stressful part of their role.<sup>32</sup> These findings reflect a potential cycle of professional shortages across the industry in Australia and New Zealand which further increases workload.

The notion of work-life balance as being integral to wellbeing outcomes is echoed in the taxonomy of protectors generated in the present study. Positive work conditions were the second most frequently reported protective theme by respondents, with the organisational factor of flexible working arrangements most reported to maintain positive wellbeing. A common theme reflected in responses was that flexible hours resulted in a healthier work-life balance and allowed for engagement in pleasurable activities ('Time to work on hobbies and grow as a person outside of the veterinary profession'). Effective rostering and adequate staff levels were also highlighted as beneficial. This is to be expected as sufficient staffing enables greater work-life balance as the workload is not shouldered solely by a small number of employees. Consequently, staff are enabled to take breaks throughout the working day, another factor deemed protective in the present study ('Getting breaks throughout the day'; 'A clinic/colleagues that prioritise breaks for themselves and for others').

It is evident that a substantial number of the reported stressors stem from professional shortages in the industry and may be unavoidable until these shortages are rectified. Professionals' remuneration has been noted as a stressor contributing to staff attrition in the industry in prior research.<sup>33</sup> In the present study, responses

**TABLE 1. Taxonomy of occupational and organisational stressors reported by veterinary professionals working in Australasia**

Themes, subthemes, and sub-subthemes	Number of responses	Response example
Work conditions (negative)	115	'Poor pay/work conditions'
Working hours	29	'Hours worked'
Expected and unpaid overtime	10	'To [sic] much assumed and expected amount of overtime with no time off or reduction in future workload'
Long hours	8	'Long hours, few breaks'
Working out of normal business hours	8	'Working weekends/nights'
Being on call	3	'24/7 on call is very stressful especially for sole practitioners and its [sic] a stress that does not go away, it just builds up overtime'
Staffing	28	'Dealing with staffing issues: How to find a replacement when someone falls sick or leaves'
Insufficient staffing	20	'When we are short staffed. I find this very stressful working as a vet nurse as you are trying to manage all roles such as hospital, surgeries or working over time to cover the late shift'
Staff rostering	4	'I manage vet rosters so trying to keep every one [sic] happy so that they feel as content and as supported as possible'
Shortage of industry professionals	3	'Vet shortages'
Working alone	2	'Sole charge - when no other vet to bounce ideas off/interpret xrays etc.'
Remuneration	21	'Poor remuneration for hours worked relative to other professions'
Work-life spillover	20	'Intrusion into family life'
Poor work-life balance	10	'Long-standing, ingrained systems and processes that do not support work-life balance and flow from generation to generation'
Difficulty winding down after work	4	'Difficulty switching off when going home'
No sick days	2	'Inability to take time off when sick'
Stigma of turning down work	1	'Judgement from other staff members when saying no/leaving on time/not taking on cases etc.'
Discrimination towards mothers	1	'Slight discrimination towards families or mothers'
Heavy workload	13	'Shortage of professional staff causing high workload'
Time constraints on cases	6	'Time constrained often to perform all necessary tasks within the day'
Role	10	'Time management and juggling calls in the busy season...'
Low locus of control	3	'Not being able to make many decisions relating to the animals because they are 'owned' by the researcher'
Poorly defined roles	1	'Poorly defined roles and responsibilities in the workplace'
Inadequate resources	7	'Wanting to do more for the animals but being constrained by lack of equipment or available funds'
Accountability	5	'A culture of shared success (all vet staff, all clients, all management) when something goes right, but the vet (often just the senior vet) gets given all the blame when something goes wrong'
High accountability	3	'Being the place where the buck stops for almost everything but actually just wanting to treat animals like I was trained for'
Low accountability	2	'Lack of accountability for private clinics with standards on staff and pet treatment'
Financial demands of running a practice	1	'Difficulty managing a practice so it remains profitable'
Challenging relationships with clients	34	'Difficult clients'
Abuse and emotional blackmail	7	'Emotional blackmail from clients - it is often expected that we work for free because we should love animals'
Inability or refusal to pay	5	'Client finances preventing adequate treatment of their animals'
Lack of appreciation or understanding	5	'Lack of understanding from clients about the responsibility of purchasing/owning a pet that is placed back on staff when there is a crisis'
Complaints about care and costs	4	'Constantly working to estimates (stressful that if you take longer in a surgery/dental there may be complaints from owners/affects the bill)'
Placing blame on staff	2	'Clients who do not listen to advice then blame you when things go wrong'

TABLE 1. Continued

Themes, subthemes, and sub-subthemes	Number of responses	Response example
Adverse events and patient outcomes	27	'Emotional/traumatic nature of work - exposure to cases of animal abuse and/or suffering'
Animal suffering and death	12	'Abuse/neglect cases or just well known patients passing away can be extremely emotionally overwhelming'
Convenience euthanasia	3	'Having to euthanise animals who can be successfully treated but clients refuse this option so pet has to be humanely killed'
Animal culling	2	'Culling research animals which have not been used for any research'
Difficult cases and surgeries	6	'Life and death decisions on a daily basis'
Moral conflicts	3	'Being forced to see or treat things you are not comfortable with because that is the company policy'
Availability of drugs	1	'Poor stock control inventory and availability of drugs'
Managing expectations	27	'High expectations from clients and management, without a full understanding of biology/medicine/veterinary clinics, which can lead to expectations that cannot be met, or require negotiation and a lot of communication'
From clients	12	'Unrealistic client expectations'
Conflicting expectations	7	'Employers want more consults/day, clients want more of your time'
High self-expectations	6	'High self-expectations relating to professional performance'
From management	6	'Extra pressure to make money from management'
From the public	2	'Expectation that I know everything about all subjects. Compare [sic.] with medics'
Challenging relationships with colleagues	21	'Dealing with difficult work colleagues'
Interpersonal conflict	7	'Feeling like you are unable to escape interpersonal conflict in the workplace because you have invested so much in gaining the position'
Mistreatment and bullying	6	'Being dismissed as 'old' and 'not valued' because do not have the desired letters after my name'
Division between professional roles	3	'Sense of division between nurses and vets'
Differing views on care	2	'Colleagues not taking standards of care seriously'
Poor communication	2	'Lack of consistent communication between staff members (both on a work day and between management and ground staff)'
Lack of professional support	13	'Lack of support'
From management	7	'Lack of interest in mental health of employees by management'
From governing bodies	4	'Complete vacuum of professional support by AVA and state registration bodies. Lots of talk, little action'
Management practices	11	'Poor practice management'
Inadequate management and leadership	7	'Poor leadership and management in the veterinary profession'
Emotional labour	10	'Everyone in this industry is empathetic ... so you feel the weight of everyone's problems'
Experiencing compassion fatigue	4	'Emotionally drained dealing with animals that are suffering'
Supporting clients	4	'Distress when dealing with clients who are experiencing great loss of their beloved animals'
Supporting colleagues	1	'Emotional toll - often feeling like you are supporting client, team, and other vet staff'
Absence of professional development	5	'Lack of mentorship/someone to learn from'
Lack of opportunities for skill enhancement	3	'Not having enough time to do the reading and training I want to do myself'
Poor training	2	'Poor training of staff'

indicated that participants felt their pay was not adequate compensation for the hours worked or the skill set required in their role. Although remuneration was reported as a stressor, it was also

reported as a protector (by four participants), indicating there may be significant differences in earnings between organisations and roles.


**TABLE 2. Taxonomy of occupational and organisational protectors reported by veterinary professionals working in Australasia**

Themes, subthemes, and sub-subthemes	Number of responses	Response example
Fulfillment and satisfaction	55	'Being able to see the difference I have made in the world or on a client's life'
Successful cases	16	'Seeing a formerly critically ill or injured patient become well and manage to go home healthy and happy. Or just patient success stories in general'
Working with animals	8	'Playing with puppies and kittens when they come in. Love it. We need to make a kitten room for destressing'
Challenging cases	6	'Being mentally challenged everyday'
Improving animal welfare	5	'Improving animal welfare -even if it is only a small change'
Variety in work	3	'Wide variety of clinical work'
Contributing to research	3	'Positive research contributions to benefit industry'
Teaching others	3	'Teaching. Giving back some of my experiences to others is great'
Helping clients	2	'Being able to help clients'
Supporting colleagues	1	'Being able to support others to succeed'
Animal husbandry	1	'Ensuring the mice are well looked after'
Work conditions (positive)	40	'Get out of work on time to get to extra curricular activities'
Flexible working arrangements	15	'Flexibility in the role - being able to take time in lieu that was accumulated earlier in the week to head off early on a Thursday afternoon, or come in later on a Friday morning etc.'
Effective rostering	10	'Appropriately staffed'
Competent team members	4	'Trusting colleagues to cope when I am away'
Taking breaks	6	'Getting breaks throughout the day'
Effective management	4	'Good management'
Remuneration	4	'Paid overtime/given time in lieu[sic]'
Job security	3	'Being an essential worker in a time of crisis (job security)'
Sufficient resources	2	'Having appropriate equipment to complete clinical tasks'
No on-call	1	'No on call'
Positive relationships with colleagues	40	'Maintaining strong interpersonal relationships in the clinic environment'
Staff events	4	'Planning nights out to dinner with staff'
Support systems	25	'Having very supportive partners and colleagues at work'
Support from colleagues	8	'Feeling supported by colleagues. Being able to learn from each other'
Supportive friends and family	8	'Having a good support network outside of work'
Support from leadership and management	7	'Knowing I can talk to my boss if there is a problem'
Supportive organisation	1	'[organisation name] is a great supportive company'
Employee assistance programs	1	'EAP programs'
Being appreciated	21	'Recognised for hard work'
Appreciative clients	14	'Client gratitude'
Acknowledgement for work by colleagues	5	'Acknowledgement of successful cases by colleagues'
Appreciation by management	2	'Feeling valued by your employer in ways such as receiving positive feedback, staff gatherings...'
Professional development	13	'Opportunities to learn or develop new skills'
Workplace culture	11	'A clinic/colleagues that prioritise breaks for themselves and for others'
Good practice policies	6	'Progressive clinic embedding new techniques and knowledge'
Positive team environment	3	'Staff team cohesion'
Having shared goals	1	'Team members I work with all share the same goal to improve animal welfare'
Positive approach to mental health	1	'Not being judged (except positively) when I say I need a break and step out of the building for a while or go for a swim'
Engaging in healthy Behaviours	11	'Getting outside/fresh air'
Having hobbies	5	'Spend leisure time creatively and in a completely unrelated field'

TABLE 2. Continued

Themes, subthemes, and sub-subthemes	Number of responses	Response example
Relationships with clients and patients	7	'Having good rapport with clients and knowing that they trust you and your expertise'
Individual factors and resources	5	'Having a good sense of humour'
Professional identity	3	'...positive self-image from being a veterinarian and doing what society/friends/acquaintances view as an interesting and caring profession'

Interestingly, despite evidence of the COVID-19 pandemic impacting fundamental aspects of working conditions in the industry,<sup>25</sup> the pandemic was not explicitly mentioned by respondents. This may be indicative of occupational stressors existing prior to the emergence of the pandemic.

**Support systems.** For participants, support both inside (colleagues, management, organisation, and employee assistance programs) and outside (family and friends) of the workplace was among the most reported factors considered important for safeguarding wellbeing ('Having very supportive partners and colleagues at work'; 'Feeling supported by colleagues'). Social support has been recurrently identified to foster resilience and positive mental health outcomes, as well as contributing to work engagement in veterinary professionals.<sup>15, 34</sup>

**Relationships with colleagues and professional networks.** Colleague relationships were described as a source of both stress and wellbeing in the current study. Interpersonal issues including conflicting views on patient care and division between professional roles (primarily between veterinarians and veterinary nurses) were reported. Poor team environments characterised by negative attitudes and undermining from colleagues have been linked to exhaustion, cynicism and low job satisfaction in the profession.<sup>35</sup> In some cases, participants reported conflict to extend beyond civil disagreements into workplace bullying behaviours ('Teams under stress often bring out the stressful side of peoples' personalities, which over time can result in teams/individuals that exclude people, bully people, talk behind their backs, set each other up to fail, and bring down people's self-confidence and clinical confidence [deliberately or unintentionally]'). Workplace bullying has been identified as an issue in other veterinary populations,<sup>36</sup> and a major psychosocial risk factor for psychopathology.<sup>37</sup> Despite colleague relations being reported as stressful by participants in the current study, these relationships were also frequently regarded as protective. One participant highlighted the benefits felt from building and maintaining their professional network ('Good, frequent and friendly communication with other professionals in our field or related fields. The feeling of growth of a professional network and collaborating on projects/cases together with mutual benefit').

A positive atmosphere with high staff cohesion was also frequently cited as protective, as were practice policies that align with employee values ('Staff team cohesion'; 'Team members I work with all share the same goal to improve animal welfare'). One subtheme generated was workplace culture towards employee mental health. Participants appreciated policies that support and prioritise employee wellbeing. Supportive workplace culture has been linked to employee

engagement and a reduction in presenteeism,<sup>38</sup> suggesting provision of this support may be beneficial for both professionals and their employers.

**Relationships with clients.** Relationships with clients were also cited as both a source of stress and fulfillment in the present study. Abuse from clients and issues surrounding the financial strains that can accompany providing veterinary care were the most common stressors in this category. Prior research has also found client interactions are a leading cause of stress for veterinary professionals.<sup>20</sup>

However, these interactions were also reported as a rewarding aspect of the job that preserves wellbeing ('Having people return to the practice even after a sad loss'). Specifically, client appreciation was positively regarded by respondents. Acknowledgement of work performance has been identified to contribute to increased work engagement and staff retention in animal care.<sup>34</sup>

**Adverse events and patient outcomes.** Adverse events related to patient care were the third most frequently reported stressor, with subthemes including animal suffering and death, difficult cases and surgeries, moral conflicts, and availability of drugs. Exposure and performance of euthanasia have also been cited elsewhere to cause distress among personnel.<sup>39</sup> The mechanisms behind this link between euthanasia performance and veterinary mental health remain unclear. It has been proposed that veterinarians go through a process of emotional habituation and develop attitudes consistent with euthanasia (and by extension, suicide) being an acceptable solution to problems.<sup>40, 41</sup> However, other studies have yielded no evidence of desensitisation to euthanasia and death.<sup>42</sup> It has been suggested it is the ethical dilemmas that often accompany euthanasia – as opposed to the procedure itself – that elicit psychological distress and poor psychological outcomes.<sup>43</sup> This corresponds with responses in the present study citing convenience euthanasia as an occupational stressor ('Regular requirements to euthanise animals in a healthy condition'; 'Euthanising an animal that you do not believe should be euthanised'). Moral conflicts such as prolonging the suffering of a patient with excessive treatments have also been reported to impact veterinary mental health.<sup>44</sup> Complex cases and high-stakes scenarios involved in veterinary care were reported in our study ('Life and death pressure situations'; 'High profile cases and disease outbreaks'). Similar findings have been reported in research across Belgium,<sup>12</sup> and the United States.<sup>36</sup>

**Managing expectations.** In line with prior research,<sup>32, 45</sup> participants cited clients having expectations that were not feasible ('Client expectations that exceed what is achievable with the available time or resources'; 'Ridiculous client expectations'). Being simultaneously

expected to fulfil client demands and maintain the profitability of the practice was reported ('Requirement to juggle client expectations, with requirement to quote and meet practice costs'). High self-expectations were also cited as a source of stress. This is congruent with the notion that the veterinary workforce is high in trait perfectionism due to the demanding academic requirements involved in veterinary training.<sup>46</sup> Public perceptions of professionals were reported in relation to how veterinary staff is compared with other medical professionals ('Expectation that I know everything about all subjects. Compare [sic] with medics'), leading to inflated expectations. One respondent suggested there is a lack of appreciation of the stress of veterinary work by the public. Public expectations were only discussed by two participants (with a similar pattern of this stressor being reported by participants in a United States sample),<sup>36</sup> suggesting it may only trouble a small number of veterinary professionals. Thus, veterinary professionals may be simultaneously experiencing high job demands on a personal, interpersonal, organisational, and public level which may be contributing to poor psychological outcomes.

**Managerial and industry support.** Lack of organisational support was reported with specific reference to behaviours enacted by management and governing bodies. Prioritising money over employee health was described by participants ('Management are very money focused, rather than caring about the mental and physical health of staff'), as was frustration with governing bodies' inaction regarding staff concerns ('Veterinary board complaints unresolved with no little communication for 2-3 years'). The perceived apathy towards employee wellbeing that participants reported experiencing from management is of particular concern. Reluctance to engage in discussion of mental health communicates that wellbeing is a personal - not organisational - issue. This may socialise employees into not seeking support when it is required. Perceived lack of workplace support has been linked to suicidality and other psychopathology.<sup>47</sup> Only eight veterinary professionals in the current study sample identified managerial/leadership or organisational support as currently contributing to their wellbeing.

**Management practices.** Management practices were reported as a source of stress for participants. However, as little additional information was provided ('Poor practice management'), it is difficult to ascertain what specific aspects of management participants were unsatisfied with. Problems with management behaviours such as abuse and lack of communication have been reported in other veterinary samples.<sup>36, 47</sup> Some participants noted effective management was a protector of their wellbeing, however, this data was also limited in detail ('Effective management') and therefore difficult to establish what veterinary professionals are seeking in a managerial approach.

**Emotional labour.** The toll of the emotional labour involved in veterinary care was frequently described, with references to feeling 'emotionally drained' and 'worn out all the time'. Despite veterinarians experiencing their own distress when performing or witnessing euthanasia,<sup>11</sup> there is often a requirement for professionals to suppress their own emotions while interacting with clients,<sup>48</sup> potentially compounding their distress. These experiences are consistent with high reported rates of compassion fatigue among veterinary

professionals.<sup>11, 36, 49</sup> Compassion fatigue arises from cumulative exposure to the suffering of others and is primarily observed in professionals working in caregiving roles,<sup>8</sup> eliciting symptoms of depression, hyperarousal, and feelings of helplessness.<sup>20</sup>

**Fulfillment and satisfaction.** Fulfillment and satisfaction was the most frequently cited theme, with successful outcomes being the most reported subtheme ('Having a successful surgery can make you feel really good afterwards'; 'Positive case outcomes, patient successes'). Several professionals specified they enjoyed contributing to the industry through teaching and research. Improving animal wellbeing was a repeated discussion point ('Making a difference to animal welfare'; 'Knowing we are advocating for pets'). These findings indicate simultaneous to instances of negative patient outcomes, experiences of fulfillment are a resource that preserves wellbeing. Responses echoed the construct of compassion satisfaction. This experience of pleasure derived from helping others has been identified as central in preserving the wellbeing of those employed in care industries, such as animal care, which may be more susceptible to experiencing compassion fatigue and burnout.<sup>20</sup> The ability to work with animals was unsurprisingly reported as a protective factor, with one participant highlighting the 'calming effect' of this aspect of the occupation.

**Professional development.** Participants expressed frustration with the educational opportunities currently offered in the industry. This ranged from poor job training ('Poor staff induction and training') to a lack of professional development opportunities ('Difficulty maintaining up to date knowledge'). One participant stressed the expectation to possess vast knowledge of veterinary care but is unable to fulfill this expectation ('Not having enough time to do the reading and training I want to do myself, in order to get fractionally closer to that ideal which people think the oldest vet should be: that of knowing everything about everything'). A lack of mentorship was also cited, suggesting chronic understaffing in the industry is obstructing occupational training. Opportunities for skill development are important in fostering motivation and minimising occupational stress.<sup>50</sup> Education and skill advancement were considered protective for those participants who reported having good access to such opportunities. Challenging cases were also cited as a protector ('Being mentally challenged everyday'), further indicating mental stimulation is valuable to this population and can promote positive outcomes for both patients and professionals themselves.

**Professional identity.** A small number of participants felt identity as a veterinary professional enhanced their wellbeing. One participant described the positive self-image they gained from practising in a profession they saw as being viewed favourably ('Positive self-image from being a veterinarian and doing what society/friends/acquaintances view as an interesting and caring profession'). Another described the way the media has positively influenced the reputation of those that work in the animal care industry.

**Individual factors and personal resources.** Finally, participants reported behaviours they practiced to preserve their mental health. Six participants described engaging in healthy behaviours and having hobbies supported their wellbeing ('Not drinking alcohol and having a very healthy diet'; 'Outside activity'). Maintaining a good sense of humour and being organised were also cited by participants. These



are considered adaptive coping strategies that aid individuals to overcome challenges<sup>51</sup> and have been cited as factors promoting resilience in the veterinary population.<sup>14</sup>

### Implications for practice

The findings of the present study illuminate occupational and organisational factors that veterinary professionals report to impact their mental health and wellbeing. These stressors and protectors should be targeted by organisations and educators in an endeavour to rebrand veterinary mental health from a solely personal issue to also be an organisational/industry issue. Given many of the stressors reported here are largely inherent in the industry, it is often more practical to increase salutogenic factors (e.g., sources of satisfaction and wellbeing) than to decrease stressors that may be an unavoidable reality of the profession. For example, veterinary professionals should be provided with increased and improved access to flexible working arrangements and breaks when on shift. Promotion of greater work-life balance will also foster engagement in health-protective behaviours, hobbies, and access to social support. Engaging with support both internal and external to the workplace may be particularly important in preserving veterinary wellbeing (and industry retention), particularly under inevitable periods of increased workload.

### Limitations and directions for future research

The present study has several limitations beyond those commonly reported in an online cross-sectional study (i.e., inability to infer causation; risk of non-response bias due to insufficient time or technological fluency to complete the survey). As demographic data was not collected, it cannot be determined how representative the findings are in relation to the role, gender, or location. A breakdown of differences in stressors and protectors between demographic groups (i.e., male vs. female veterinary professionals, veterinarians vs. nurses vs. technicians, small practice vs. large practice, rural vs. urban, after-hours vs. business hours clinics) would be highly beneficial in future research to enable identification of the factors most relevant to specific veterinary populations. It may also be beneficial for future research to investigate factors that moderate outcomes on an individual level (i.e., why some employees face interpersonal conflict and others experience camaraderie in the workplace).

Due to the exploratory nature of this study and the methodology employed, a small sample size was utilised in comparison to quantitative studies. However, the themes identified in the present study may provide an opportunity for future quantitative research that explores these stressors and protectors on a larger scale with a more representative sample. In addition to the frequency of exposure to these factors, future research should examine the relative impact of each on psychological outcomes. Similarly, identifying which protectors are most effective in preserving wellbeing would be informative in preventative intervention development.

### Conclusions

The results of this study describe a range of occupational and organisational factors that can both protect and threaten the mental health and wellbeing of this population. The identification of factors on both an individual and organisational level is an important step in sharing the responsibility of workplace mental health with both the employee and employer. These findings can inform the development of comprehensive interventions tailored to address stressors and protectors relevant to veterinary professionals.

### Acknowledgments

Open access publishing facilitated by University of Tasmania, as part of the Wiley – University of Tasmania agreement via the Council of Australian University Librarians.

### Conflicts of interest and sources of funding

The authors declare no conflicts of interest or sources of funding for the work presented here.

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(Accepted for publication 25 April 2022)