The psychological wellbeing within the veterinary profession in Sweden

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To cite this article: Ossian Hagevi, Anna Olsson & Billy Jansson (14 Mar 2024): The psychological wellbeing within the veterinary profession in Sweden, Journal of Workplace Behavioral Health, DOI: 10.1080/15555240.2024.2328074

To link to this article: https://doi.org/10.1080/15555240.2024.2328074

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Published online: 14 Mar 2024.

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The psychological wellbeing within the veterinary profession in Sweden

Ossian Hagevi, Anna Olsson, and Billy Jansson

Department of Psychology and Social Work, Mid Sweden University, Östersund, Sweden

ABSTRACT

The veterinary profession seems to be particularly affected by mental health problems than other occupational groups, primarily a consequence of exposure to various sources of psychological distress that is common within the profession (e.g., euthanasia administration, and client interactions). This article is the first to investigate the association between work-specific factors and wellbeing in the veterinary profession in Sweden. A cross-sectional survey sampled 280 (256 females) Sweden-registered veterinarians and nurses (235 veterinarians, 45 veterinary nurses). Multiple platforms and methods were used to increase diversity and inclusiveness in the sample. In this study, we investigated the associations between psychological wellbeing by including variables from several studies that have previously been associated with decreased wellbeing within the veterinary profession in order to get a more comprehensive picture of factors that may contribute to increased risk of mental illness. Results showed that, after adjusting for the influence of psychosocial working environment factors, except for variables related to euthanasia which were not associated with decreased wellbeing, measures indexing difficult client interactions were, on the other hand, associated with decreased wellbeing. Thus, negative experiences from client interactions suggest that these could be candidates for the development and maintenance of poor wellbeing among individuals within the veterinary profession. This research can potentially assist in designing more targeted intervention studies and serve educational purposes for both staff and future professionals.

ARTICLE HISTORY

Received 17 April 2023
Accepted 28 February 2024

KEYWORDS

The veterinary profession; work experiences; client interactions; psychological wellbeing

Psychological wellbeing and suicidality of veterinarians have been subjects of study in multiple nations. Several studies have reported a disproportionately higher risk of suicide or poor wellbeing in this population compared...
to a normal population (e.g., Bartram et al., 2009a; Hill et al., 2020). Regarding the psychosocial working environment among veterinarians, increased perceived work-related stress has been associated with higher workload, higher work demands, poorer work-life balance, and less social support (Bartram et al., 2009b; Platt et al., 2012). More importantly, given that the veterinarian is regularly in contact with both the suffering animal and the distressed owner, high demands on medical competence, social skills, and empathy seem to be intrinsic parts of the profession, which in the long run could be emotionally exhausting. Indeed, there is evidence suggesting that unrealistic client expectations are directly related to burnout and, indirectly, to suicidal thoughts (Wallace, 2017). Performing euthanasia is another potential stressor that veterinarians are exposed to; however, this variable has been examined in only a few studies. Tran et al. (2014) observed a weak relationship between euthanasia frequency and depressed mood. However, the psychological effects of performing euthanasia tend to be complex and vary depending on the context, and veterinarians have described that euthanasia is fine as long as the reasons are in line with their values, medical judgment and an overall sense of making the correct choice (Waters et al., 2019). As an example, veterinary professionals with less experience tend to encounter situations they classified as ethical dilemmas more frequently leading to moral stress, in which females are more prone to experiencing stress in such situations (Kipperman et al., 2018).

Although prior research has primarily emphasized the negative aspects of the profession, giving limited attention to exploring positive work experiences that enhance veterinarians’ wellbeing, Wallace (2019) provides evidence that factors such as helping animals and people, self-actualization (i.e., meeting and overcoming complex challenges), and professional belonging are key predictors of meaningful work. Notably, self-actualization and professional belonging are also directly associated with increased wellbeing. Ensuring a sustainable workforce is crucial for the veterinary profession to operate effectively, and there appears to be a growing challenge in retaining veterinarians in clinical practice. As a consequence, recent research is paying attention to predicting and understanding job disengagement (e.g., Crane et al., 2023). There is also evidence suggesting that women and younger individuals in the veterinary profession are at greatest risk of suicidal thoughts, lower wellbeing, and increased stress-related problems (Platt et al., 2010). It is noteworthy that the among 2500 practicing veterinarians in Sweden in year 2018 (SCB, 2018), about 80% of Swedish veterinarians are women (UHR, 2020).

Given the unique tasks associated with the veterinary profession, to date, there has been no research in Sweden that has investigated factors associated with wellbeing among individuals in the veterinary profession. Hence,
the purpose of this study was to investigate if earlier research findings can be observed among veterinarians and veterinary nurses in Sweden. In this study, we investigated the associations between psychological wellbeing and several variables by including variables from several studies that have previously been associated with decreased wellbeing within the veterinary profession in order to get a more comprehensive picture of factors that may contribute to increased risk of mental illness. That is, apart from demographic variables (Perret et al., 2020; Platt et al., 2010) and psychosocial variables (Bartram et al., 2009a, 2009b; Platt et al., 2012; Wallace, 2017) that are typically associated with decreased wellbeing, our focal predictors that were related to the veterinary profession found in previous studies include variables: stressful client interaction and unrealistic expectations (Gardner & Hini, 2006; Wallace, 2017), euthanasia frequency and experiencing euthanasia as stressful (Hill et al., 2020; Tran et al., 2014) and empathy (Hanrahan et al., 2018; Waters et al., 2019). In addition, as longer working hours has been associated with poorer mental health in female veterinarians (e.g., Shirangi et al., 2013), working hours (per week) was included in the study.

It was expected that increased work experience, social support, supportive psychosocial working conditions, work-life balance and dream realization are associated with better psychological wellbeing. Additionally, longer working hours, higher levels of workload, empathy, euthanasia frequency, experiencing euthanasia as stressful, doubtful euthanasia, stressful client interactions, and unrealistic expectations were expected to be negatively associated with psychological wellbeing.

Method

Participants and procedure

Participants consisted of practicing and licensed veterinarians and veterinary nurses working at small animal clinics in Sweden. A digital survey (Qualtrics, Provo, UT) was used to collect data (November 17–December 11, 2020). We used multiple platforms and methods as a strategy to increase diversity and inclusiveness in the sample. The Swedish paper “Veterinärmagazinet” and the Swedish Veterinary Association distributed the survey to their members via email. Additionally, a few veterinary clinics were provided with the link to the survey directly by the authors of this study. In particular, the Swedish Veterinary Association (which is the professional organization for Swedish veterinarians) was used to reach the target population and to enhance the sample size of the study. In total, 280 participants of the 373 who opened the survey, completed it (235 veterinarians, 45 veterinary nurses), and 256 were females, with ages ranging from
22 to 69 years ($M = 42.66$, $SD = 11.09$). Participants received information on data processing, anonymity, and the right to cancel participation. Informed consent was mandatory and processing of data was conducted under the regulations of the GDPR (EU:2016/679). The local ethical committee approved the study and did not find it necessary to seek ethical approval from the regional ethics committee. Our sample size allowed us to detect correlation coefficients of at least $r = .17$ or more with a power of 0.82.

**Material**

The survey measured gender and work-related factors of employment (occupation, years of practicing, working hours/week).

**Risk and protective factors**

Individual differences in empathy (Cliffordson, 2001; Davis, 1983) was measured using two (personal distress and empathic concern) of the four scales (7 items for each subscale), and rated on five-point Likert scale ranging from “Does not describe me well” to “Describes me very well,” with higher scores indicating higher levels of personal distress and empathic concern. McDonald’s $\omega$ was 0.775 for personal distress and 0.768 for empathic concern in the current study.

The Multidimensional Scale of Perceived Social Support (Ekbräck et al., 2013; Zimet et al., 1988) is 12-item scale used to measure social support from three sources: family, friends, and significant other (using a five-point Likert scale ($0 = $strongly disagree, $5 = $strongly agree$)). A total score for the three dimensions was calculated, with higher scores indicating higher levels of social support. McDonald’s $\omega$ was 0.941 for the current study.

**Psychosocial work environment**

Three dimensions of the Work Experiences Measurement Scale (WEMS, Nilsson et al., 2010) were measured; “supportive working conditions” (7 items), “work experiences” (6 items), and “time experiences” (3 items). The statements are rated on a six-degree scale ranging from 1, “agree completely,” to 6, “disagree completely,” with higher scores indicating more negative work experiences. A total score for the three dimensions was calculated. McDonald’s $\omega$ was .919 in the current study.

One single question on work-life balance (“I am satisfied with my life situation with regard to work-life balance”) accompanied the indices (Ejlertsson et al., 2018). The statements are rated on a six-degree scale
ranging from 1, “strongly agree,” to 6, “strongly disagree,” with higher scores indicating poorer work-life balance.

**Work-specific factors**

Work-specific factors could not be measured by validated instruments, hence, single-item measures were derived from previous studies. “I experience euthanasia as stressful,” “it has been a dream to work with animals” (Hill et al., 2020), and *Objectionable Euthanasia* frequency (“I am often required to perform euthanasia that I do not agree with”) (Tran et al., 2014) were rated on a six-degree scale ranging from 1, “strongly disagree,” to 6, “strongly agree.” In addition, *Euthanasia Frequency* (Tran et al., 2014) was measured by asking “In the last 12 months, on a typical week, how many times would you perform euthanasia?” and noting the number of times.

Two single-items were used to measure difficult client interaction: “Pet-owners have unrealistic expectations on the care that can be offered” (Bartram et al., 2009b; Wallace, 2017) and “I find the meeting with pet owners stressful” (Waters et al., 2019) and rated on a five-degree scale ranging from “never” (1) to “most of the time” (5).

**Psychological wellbeing**

The Swedish Psychological Wellbeing scale (18-items) provides a measure of subjective psychological wellbeing and was developed and validated in Sweden (Braconier, 2015), but has been translated to 33 languages. The statements are rated on a five-degree scale ranging from “never” (coded 1) to “very often” (coded 5). Braconier (2015) reports correlation coefficient between the scale and depression and anxiety of .75 and .62 (respectively) in a non-clinical population, and .71 and .69 (respectively) in a clinical population, along with Cronbach’s alpha of 0.93 and 0.95 for the respective population. McDonald’s ω was 0.949 for the current study.

**Statistical analyses**

Statistical analyses were conducted using the Jasp v0.17.1. software (JASP Team, 2023) by complementing frequentist statistics with Bayesian statistics (used for model comparison). The Bayes factor (BF<sub>10</sub>) expresses the likelihood of the data given the alternative hypothesis relative to the likelihood of the data given the null hypothesis. Interpreting the Bayes factors using Jeffreys’s classification scheme (van den Bergh et al., 2021); a BF<sub>10</sub> between 1 and 3 is labeled as *anecdotal evidence*, a BF<sub>10</sub> between 3 and 10 indicates *moderate evidence*, and BF<sub>10</sub> greater than 10 indicates *strong evidence*. 
The purpose was to assess the contribution of the predictors of interest over and above the contribution from the nuisance predictors. First, associations between variables were estimated with Pearson’s, and variables significantly associated with the dependent variable were entered in a multiple linear regression (MLR). In the first MLR, the impact of gender, work-related factors of employment, potential risk and protective factors, and psychosocial work environment factors were used as predictors in the equation (using the ENTER method). In the second MLR, only predictors that were significantly associated with the dependent variable in the first MLR were entered in Step 1, and work-specific factors in Step 2. After including nuisance predictors in Step 1 (i.e., the null model), we further examined how much the model improved compared to the null model. Here, we also report the inclusion Bayes factor (BF_{incl}) which is defined as the change from prior inclusion odds to posterior inclusion odds and can be interpreted as the evidence in the data for including an effect in the model (van den Bergh et al., 2021), and therefore the interpretation of the support for an effect is similar as for the BF_{10}. A beta-binomial model prior (\(\alpha = \beta = 1\)) model was assumed, and a Jeffreys–Zellner–Siow (JZS) prior on parameters was used (r-scale = .354).

**Results**

Descriptive statistics of the assessed variables and associations among variables are summarized in Table 1. Apart from working hours (per week), emphatic concerns, and dream to work with animals, the remaining variables were significantly associated with psychological wellbeing. Years of practicing were strongly correlated with age and were used instead of age in subsequent analyses as this variable is more meaningful in the present context. When gender and variables associated with work-related factors of employment and potential risk/protective factors were entered in an MRA, the model was significant (\(R^2 = .62, F(6, 272) = 74.93, p < .0001\)). All variables, except gender, remained significant when in competition with each other (Table 2). In this model, although more years of practicing the profession and increased social support were associated with better psychological wellbeing, poorer psychosocial work environment (WEMS and work life balance [WLB]) and increased personal distress were associated with poorer psychological wellbeing.

Entering variables associated with work-specific factors in a second MRA (including significant predictors from the first MRA in the null model) resulted in a significant increase in explained variance from step 1 to 2, \(\Delta R^2 = .026, F(5, 268) = 3.93, p = .001\). Specifically, although the effects of the three variables associated with euthanasia were weak, the two variables
Table 1. Pearson correlations between the predictors, and between the predictors and the dependent variable (psychological wellbeing), means and standard deviations.

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
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<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. WB</td>
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<td>—</td>
<td>58.61 (12.88)</td>
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<tr>
<td>2. Gender</td>
<td>−1.153*</td>
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<tr>
<td>3. Age</td>
<td>−.248*** −.146*</td>
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<tr>
<td>4. WH</td>
<td>−.063 −.169** −.131*</td>
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<tr>
<td>5. YoP</td>
<td>.261*** −.155** .916*** −.152*</td>
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<tr>
<td>6. WLB</td>
<td>−.674*** .016 −.230*** .254*** −.232***</td>
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<td>47.64 (13.52)</td>
</tr>
<tr>
<td>7. WEMS</td>
<td>−.657*** .124* −.129* .028 −.128* .643***</td>
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<td>65.09 (15.69)</td>
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<tr>
<td>8. SS</td>
<td>.420*** −.053 −.165** −.119* −.137* −.276*** −.303***</td>
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<tr>
<td>9. EC</td>
<td>.033 .137* .077 .060 .077 .039 .021 .203***</td>
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<tr>
<td>10. PD</td>
<td>−.286*** .074 −.236*** −.041 −.235*** .143* .204*** −.055 .055</td>
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<tr>
<td>11. CExpect</td>
<td>−.463*** .137* −.216** .095 −.229*** .363*** .398*** −.190** −.033 .060</td>
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<tr>
<td>12. CSTress</td>
<td>−.522*** .091 −.331*** −.014 −.346*** .406*** .446*** −.172** −.050 .307*** .559***</td>
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<tr>
<td>13. Dream</td>
<td>−.005 .108 −.138* .007 −.156** −.023 −.102 .081 .086 .013 .106 .029</td>
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<tr>
<td>14. EF</td>
<td>−.133* .002 −.249*** .161** −.205*** .158* .140* −.006 −.013 −.011 .275*** .224*** .113</td>
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<tr>
<td>15. Estress</td>
<td>−.238*** −.080 .043 −.049 .010 .192 .287*** −.089 .146 .246*** .161*** .307*** −.018 −.074</td>
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<tr>
<td>16. OEF</td>
<td>−.131* .064 −.127* −.003 −.133* .107 .137* −.006 .071 .181*** .118* .200*** .033 .074 .284***</td>
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<td>1.79 (1.20)</td>
</tr>
</tbody>
</table>

Note: WB: psychological wellbeing; WH: working hours (weekly); YoP: years of practicing; WLB: work life balance; WEMS: Work Experiences Measurement Scale; SS: social support; EC: empathic concern; PD: personal distress; CExpect: client expectations are unrealistic; CSTress: experiencing client-interactions as stressful; Dream: “dream to work with animals”; EF: euthanasia frequency; Estress: experiencing euthanasia as stressful; OEF: objectionable euthanasia frequency.

*p < .05, **p < .01, ***p < .001
associated with difficult client interactions (pet-owners’ unrealistic expectations and experiencing client-interactions as stressful) were significant, with increased aversive client interaction being associated with poorer psychological wellbeing (Table 2). For the pet-owners’ unrealistic expectations variable, the inclusion Bayes factor was 5.49 across all the candidate models, suggesting that the model including this variable is about five times more likely, on average, than the model without this variable (i.e., moderate evidence for its inclusion). Regarding experiencing client-interactions as stressful variable, the inclusion Bayes factor was 4.44. Across all candidate models, the model with the pet-owners’ unrealistic expectations variable is, on average, about 4.5 times more likely than the model without this variable (i.e., moderate evidence for its inclusion).

**Table 2. Hierarchical regression analysis predicting psychological wellbeing.**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstand.β (CI 95)</th>
<th>SE</th>
<th>Standard.β</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>H₀ (Intercept)</td>
<td>80.913 (70.532/91.294)</td>
<td>4.326</td>
<td>11.935</td>
<td>&lt;.001</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>−3.096 (−6.548/0.356)</td>
<td>1.753</td>
<td>−0.068</td>
<td>−1.766</td>
<td>.079</td>
</tr>
<tr>
<td>Year of practicing</td>
<td>0.160 (0.061/0.258)</td>
<td>0.050</td>
<td>0.130</td>
<td>3.203</td>
<td>.002</td>
</tr>
<tr>
<td>WEMS</td>
<td>−0.285 (−0.379/−0.190)</td>
<td>0.048</td>
<td>−0.299</td>
<td>−5.935</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>WLB</td>
<td>−3.328 (−4.230/−2.426)</td>
<td>0.458</td>
<td>−0.367</td>
<td>−7.262</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Personal distress</td>
<td>−0.338 (−0.548/−0.129)</td>
<td>0.106</td>
<td>−0.124</td>
<td>−3.180</td>
<td>.002</td>
</tr>
<tr>
<td>Social support</td>
<td>0.194 (0.128/0.259)</td>
<td>0.033</td>
<td>0.236</td>
<td>5.854</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>H₁ (Intercept)</td>
<td>88.387 (77.528/99.247)</td>
<td>5.516</td>
<td>16.025</td>
<td>&lt;.001</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>−2.753 (−6.171/0.664)</td>
<td>1.736</td>
<td>−0.060</td>
<td>−1.586</td>
<td>.114</td>
</tr>
<tr>
<td>Year of practicing</td>
<td>0.109 (0.008/0.210)</td>
<td>0.051</td>
<td>0.089</td>
<td>2.117</td>
<td>.035</td>
</tr>
<tr>
<td>WEMS</td>
<td>−0.228 (−0.325/−0.132)</td>
<td>0.049</td>
<td>−0.240</td>
<td>−4.650</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>WLB</td>
<td>−3.079 (−3.966/−0.229)</td>
<td>0.450</td>
<td>−0.340</td>
<td>−6.835</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Personal distress</td>
<td>−0.300 (−0.515/−0.084)</td>
<td>0.109</td>
<td>−0.110</td>
<td>−2.737</td>
<td>.007</td>
</tr>
<tr>
<td>Social support</td>
<td>0.177 (0.113/0.241)</td>
<td>0.033</td>
<td>0.216</td>
<td>5.449</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Unrealistic clients</td>
<td>−2.046 (−3.695/−0.397)</td>
<td>0.837</td>
<td>−0.113</td>
<td>−2.443</td>
<td>.015</td>
</tr>
<tr>
<td>Client-interactions stressful</td>
<td>−1.547 (−2.93/−0.158)</td>
<td>0.706</td>
<td>−0.111</td>
<td>−2.193</td>
<td>.029</td>
</tr>
<tr>
<td>Objectionable euthanasia</td>
<td>0.134 (−0.683/0.951)</td>
<td>0.415</td>
<td>0.012</td>
<td>0.323</td>
<td>.747</td>
</tr>
<tr>
<td>Euthanasia as stressful</td>
<td>−0.085 (−0.690/0.520)</td>
<td>0.307</td>
<td>−0.012</td>
<td>−0.277</td>
<td>.782</td>
</tr>
<tr>
<td>Euthanasia frequency</td>
<td>0.136 (−0.248/0.519)</td>
<td>0.195</td>
<td>0.027</td>
<td>0.695</td>
<td>.487</td>
</tr>
</tbody>
</table>

**Note:** WLB: work life balance; WEMS: Work Experiences Measurement Scale; unrealistic clients: client expectations are unrealistic; client-interactions stressful: experiencing client-interactions as stressful; objectionable euthanasia: frequency of objectionable euthanasia; euthanasia as stressful: experiencing euthanasia as stressful.

Discussion

Although higher levels of work-life balance, social support, professional experience and supportive conditions at work are predictive of better psychological wellbeing, stronger experiences of client interactions as stressful, more often experiencing unrealistic expectations from clients, and higher level of personal distress in difficult interpersonal situations were associated with poorer psychological wellbeing.

The results were in line with earlier evidence of the psychosocial working environment being an important factor determining the wellbeing among veterinarians (Bartram et al., 2009b; Platt et al., 2012). However, workload as measured by hours worked per week did not correlate significantly with
wellbeing. In a profession in which experiences of psychosocial conditions and inner vulnerabilities (such as empathic concerns) seem very important in relation to wellbeing, the exact number of hours worked per week might be less of an issue.

With respect to the work-specific variables, the two measures that were used to measure difficult client interactions were significant and in line with previous studies (Gardner & Hini, 2006; Wallace, 2017). That is, poorer wellbeing are observed among (1) individuals who are experiencing higher levels of stressful client-interactions and (2) among those who are more often experiencing unrealistic expectations, with a Bayes factor indicating moderate evidence for these variables. Effects of animal euthanasia have been of interest in multiple studies, but marked associations between the experiences of euthanasia and employee wellbeing have typically not been found, as it is sometimes dependent on the levels on a moderating factor (e.g., Tran et al., 2014; Wallace, 2017) or specifically related to compassion fatigue and burnout (Hill et al., 2020). Although the contribution of the work-specific variables on psychological wellbeing was limited, there is a possibility that the strength of associations is dependent on other factors. Thus, future research should focus on the identification of moderating factors, as they not only inform us about the relative importance of the variable in the model, but also because future intervention studies could gain valuable information by investigating the influence of these factors on preventive measures.

The present study did not find any significant predictive effects of euthanasia experiences. One reason for the discrepancy between previous studies and our study is that studies that have found associations between euthanasia and employee wellbeing were studies that had very high statistical power. That is, although a significant p-value is indicative of support of the alternative hypothesis, the effects are generally weak (i.e., an effect too small to matter), and the inclusion of the Bayes factors (rather than the sole reliance on the p-value) for the analyses could serve to determine the presence/absence of an effect. Another reason for the discrepancy between previous studies and our study is the selection of covariates in the model. That is, when looking at the zero-order correlations between all of the work-specific variables and the dependent variable (Table 1), apart from “Dream to work with animals,” the remaining variables were significant. However, when in competition with other covariates in the model, only two measures survived for the adjustment of other covariates (experiencing stressful client interactions and unrealistic expectations). Regarding dream realization, the result from Hill et al. (2020) indicating that an intrinsic motivation of working with animals can support wellbeing was not replicated in the current study. As concluded by Cake et al. (2019), a multitude...
of both intrinsic and extrinsic motivations seems relevant in pursuing a career in this field. Thus, future research should broaden the motivations included to deepen the understanding of motivations that promote well-being in veterinarians. Although the statistical impact of a specific variable informs us about the relative importance of the variable in the model, emphasizing the significance of alleviating psychological stressors is crucial for enhancing the overall mental wellbeing of veterinarians. As pointed out by Pohl et al. (2022), further research (particularly intervention studies) examining the impact of preventive measures, is warranted to advance the mental health of this professional group.

The novel aspect of study was the combination of variables from several studies in the model to predict psychological wellbeing, within the context of a country (Sweden) that has not yet explored these relationships. For the work-specific variables, we opted for single-item measures for two reasons; (1) Single item measures were used in previous studies, and therefore facilitating comparisons between studies and (2) Multi-item measures are limited due to their length, which can lead to survey fatigue, and due to the extensive item count, we favored single-item measures. Additionally, although multi-item measures have several advantages, such as higher reliability, single item measures often exhibit robust psychometric properties and construct validity (e.g., Matthews et al., 2022). With respect to the outcome measure, different studies have used different outcome measures related to psychological health (e.g., depression, anxiety, burnout, suicide ideation). It is possible that different measures (i.e., depression, anxiety) could have more clear-cut relationships with our predictors in the model compared to our more general measure of psychological health. However, we chose to rely on one single measure of psychological health (which is strongly correlated with anxiety and depression) to make a brief survey that could increase the completion rate of the survey. For the same reason, we chose not to include questions about suicide ideation, as inquiries regarding dying by suicide could make participants hesitant to complete the survey. One notable strength of the study was the high participation rate, with nearly 9% of currently practicing Swedish veterinarians actively participating.

In conclusion, although several general and work-specific psychological factors predicted psychological wellbeing, the effects of negative experiences from client interactions suggests that these could be candidates for the development and maintenance of poor wellbeing among individuals within the veterinary profession. However, it could be the case that poorer well-being will increase the likelihood of perceiving the client interactions as difficult. Thus, future research should be focused on designs that could answer questions with respect to the causality for the development and
maintenance of poor wellbeing. The demonstrable positive effects of interventions that have been observed underscore the potential for meaningful change (e.g., Bartram et al., 2010). Through the strategic implementation of evidence-based and tailored interventions, Sweden should aim to find effective solutions for the issue at hand.

**Disclosure statement**

No potential conflict of interest was reported by the author(s).

**References**


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