Cross-sectional analysis of veterinary student coping strategies and stigma in seeking psychological help

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Abstract

Veterinary education can result in high levels of academic stressors for students. Students are also susceptible to non-academic stressors, including relationship issues and financial concerns. These can all result in mental ill health, which may impair the student's ability to complete their studies and go on to a successful professional career. Finding and using strategies early on to help alleviate mental health problems is critical to successful management of these problems, but seeking help may be impeded by the stigma associated with mental health problems. Using a cross-sectional online survey of a sample of Australian veterinary students, the aim of the current study was to investigate the type and frequency of their coping strategies as well as to explore relationships between self-stigma and coping strategies. Female veterinary students reported more use of instrumental and emotional support as coping strategies, while male veterinary students demonstrated more use of humour. Self-stigma was related to less instrumental support, greater self-blame and gender, while males who employed more humour as a coping strategy reported more self-stigma. Improving the coping strategies of veterinary students and reducing the self-stigma surrounding mental ill health is important to improve the wellbeing and resilience of the veterinary profession.

Introduction

Veterinary education presents a number of stressors for students, which in some cases may be associated with negative mental health outcomes. Academic stressors include the pace and volume of material to be learned, demands of assessment, deficits in clinical, study and time management skills, concerns about being negatively compared with peers and ethical dilemmas related to learning.[1–5] Students may also have stressors outside of their academic studies, such as relationship or family issues, personal health concerns and financial concerns.[2 5–7] For some students, these stressors are associated with mental health problems such as debilitating stress, anxiety and depression.[4 8 9] For example, 27 per cent of respondents (n=1480) to a survey of veterinary students in the UK in 2016 reported that they suffered from depression while at university, which was more than 10 times the national average.[8] Suicidal ideation has also been documented among veterinary students.[10]

Strategies used by individuals to cope with stressors may be emotion focused, problem focused or dysfunctional.[11–13] Emotion-focused coping strategies include seeking emotional support, accepting what has happened, positively reframing the situation, drawing on one's religious beliefs or spirituality for comfort and using humour.[11 13] Problem-focused coping strategies include planning, seeking instrumental support and actively working to improve the situation.[13] In contrast, dysfunctional coping strategies include denial, self-distraction, venting, self-blame, substance misuse and behavioural disengagement, or giving up.[13] Little research has been conducted into the specific coping strategies used by veterinary students. A qualitative study of veterinary students in New Zealand (n=36) revealed that as a whole they used both effective coping strategies, such as drawing on personal resources and social support, and dysfunctional coping strategies, such as substance use and procrastination.[5] A quantitative study of veterinary students in Australia

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(n=57) found that respondents used adaptive coping strategies such as humour, problem-solving, seeking support and advice from others, work-life balance and physical self-care.[14] In addition to these, they also used maladaptive strategies such as substance use and procrastination and reported a limited use of professional counselling. While this study provided early and important information about coping strategies in veterinary students in Australia, the generalisability and representativeness of the results are limited by the small sample size, single site of research and use of unvalidated measures. Given the stressors and mental health challenges reported by veterinary students, establishing the use and prevalence of specific coping strategies using validated measures is an important next step in this research.

The ability to seek emotional and practical support for problems is an important component of coping.[11 12 15] Additionally, help-seeking behaviours can be viewed as a strategy to develop resilience in veterinary students and professionals.[11 16] Accessing appropriate professional medical and counselling services can help people with mental health problems navigate these to resolution or long-term management. Without seeking support, people risk perpetuating both mental health problems and associated maladaptive coping strategies.[15 17] Therefore, help-seeking can be viewed as a wellness behaviour not restricted to mental ill health.

Despite the importance of seeking help when suffering from mental illness, stigma around mental ill health and accessing treatment may stop individuals from doing so.[17 18] Once used to refer to a physical mark of disgrace, stigma is now used to refer to 'a strong feeling of disapproval that most people in a society have about something, especially when this is unfair.'[19] This includes the perception that people hold disapproving attitudes or behaviours towards persons with mental ill health (perceived stigma), and the self-stigma that occurs when these perceptions are internalised.[17 20] Gender seems to be related to self-stigma, with men more likely to report higher self-stigma in seeking psychological help than females.[21 22] Negative outcomes feared as a result of mental health stigma include embarrassment, shame, diminished self-esteem, negative social judgement, confidentiality concerns, academic reprisal and employment-related discrimination.[17 23–26] Self-stigma is a key predictor of attitudes towards engaging with mental health services.[20 25 27] Importantly, self-stigma and perceived stigma may impede engagement with suicide prevention and mental health awareness interventions.[28–31] Given the noted mental health difficulties experienced by veterinary professionals and students, stigma and disinclination to seek help potentially exacerbates the problem.

In the medical profession, stigma has been reported among the student body to a range of mental illnesses including stress, depression and suicidal ideation.[32–35] Students reported fear of stigmatisation, confidentiality concerns and potential negative attitudes by future employers and regulatory bodies as reasons underlying lack of formal engagement with mental health services.[32 35–37] Students perceived that their academic record, status and/or clinical evaluations might be negatively impacted if their college administration or assessors knew they suffered from mental health problems.[23 35] In one study, students perceived that stigma around mental health problems persisted into the profession, and reported avoiding help-seeking for mental ill health from early in their degree due to this perception.[32] The mandated reporting of mental health problems deemed to impair professional conduct in human medicine in some countries might potentially perpetuate stigma and isolate those most needing help.

Few studies have explored stigma around seeking help for mental ill health in the veterinary student body. Results from two studies in the UK indicate that both self-stigma and perceived stigma exist among veterinary students, as well as the general community.[38 39] More than two-thirds of respondents to a 2013 study (n=507) reported self-stigma around others knowing if they were suffering from mental health problems.[38] Less than a quarter agreed with the statement that 'People are generally caring and sympathetic to people with mental health problems.'[38] Similarly, respondents to a trial of an in-school counselling service at one veterinary school in the UK reported that they would be less likely to use a counselling service at the veterinary campus due to lack of anonymity and perceived stigma.[39] Some participants in a qualitative study of New Zealand veterinary students reported stigma around mental health problems and resulting unwillingness to seek help.[5] Further elucidation of self-stigma using validated measures was not presented in the aforementioned studies. Research with veterinary students in Australia using validated measures revealed that self-stigma was associated with secondary traumatic stress.[40] Secondary traumatic stress, in a work environment, is noted as secondary exposure to others' traumatic or extremely stressful experiences.[41] It is possible that not seeking psychological help from a therapist due to stigma might exacerbate the development of secondary traumatic stress, which has also been associated with burnout.[40] While there are some emerging data pertaining to self-stigma in veterinary medicine, associated coping strategies are not well understood.

The aim of this study was to investigate coping strategies employed by veterinary students and reported self-stigma. Specifically, the research questions were:

1. What coping strategies do veterinary students report, and what are the differences in coping strategies between male and female veterinary students?
2. What relationships exist between discrete methods of coping and self-reported self-stigma?

Materials and methods

Procedure and participants

Details of the study procedure have been published elsewhere.[42] In short, students from six of seven Australian veterinary schools who met the inclusion criteria of having completed at least two weeks of clinical extramural placements at a veterinary clinic or who had previously worked (or were currently working) in a veterinary clinic participated in the study. Recruitment involved advertising the survey link via Facebook. Additionally, an email with an information sheet and link to the online survey was sent to administrative staff members at each university who distributed the information to eligible veterinary students. Data collection took place over approximately six weeks from the end of July 2015 to the beginning of September 2015. From the sample of veterinary schools contacted, 828 veterinary students were invited to participate in the study.

Survey

The cross-sectional survey was conducted online using SurveyMonkey (https://www.surveymonkey.com/) and all submissions were anonymous. The survey consisted of several demographic questions including students' age and gender, as well as several validated psychological measures.

Outcome variable

Self-stigma

The Self-Stigma of Seeking Help Scale[43] is a 10-item scale that measures a participant's level of comfort or concern regarding their seeking psychological help from a therapist or counsellor. The items are scored on a 5-point Likert scale (1=strongly disagree to 5=strongly agree). The total score is calculated from the sum of all 10 items on the scale, giving a range of 10–50. Items 2, 4, 5, 7 and 9 are positively worded and were reverse scored prior to analysis. Sample self-stigma items include 'It would make me feel inferior to ask a therapist for help' and 'I would feel worse about myself if I could not solve my own problems.' The measurement has demonstrated excellent internal reliability in the original study (α=0.91).[27]

Predictor variable

Coping

The Brief Coping Orientation to Problems Experienced (Brief COPE) is a 28-item scale that measures 14 conceptually different coping strategies. The internal reliability of each scale in the original study was: self-distraction (α=0.71), active coping (α=0.68), denial (α=0.54), substance use (α=0.90), use of emotional support (α=0.71), use of instrumental support (α=0.64), behavioural disengagement (α=0.65), venting (α=0.50), positive reframing (α=0.64), planning (α=0.73), humour (α=0.73), acceptance (α=0.57), religion (α=0.82) and self-blame (α=0.69).[12 44] The items on all 14 subscales are scored on a 4-point scale (1=I haven't been doing this at all to 4=I've been doing this a lot). The total score for each subscale is the sum of included items, ranging from 2 to 8.

Data analysis

Data were analysed for normality, outliers and test assumptions using SPSS Statistics V.24. Skewness and kurtosis was examined with histograms. The religion and substance use variables were positively skewed. The variables were log-transformed and visual inspection of histograms performed. The subsequent analyses were performed with transformed and non-transformed scores. This was not found to make any significant difference to the results, so the non-transformed variables were retained.

Furthermore, Pett[45] noted that in large samples skewed variables likely do not deviate from normality enough to affect the analysis. Additionally, there were no significant outliers detected, with Z scores within normal limits. Linearity, homogeneity of regression slopes, homogeneity of variance, the reliability of the covariates and correlations among covariates assumptions were met. The unstandardised residuals for self-stigma were examined for normality. The Shapiro-Wilk test of normality was not significant and visual inspection of histograms and Q-Q plots suggested the data were within normal limits for distribution. In light of these observations, parametric analyses were conducted.

Independent-samples *t* tests were conducted to compare female and male results in the following subscales: self-distraction, active coping, substance use, emotional support, instrumental support, planning, humour, religion, self-blame and positive reframing.

Finally, the data were examined using a custom backward univariate generalised linear model with main effects of age, gender, self-blame, planning, active coping, positive reframing, emotional support, instrumental support, humour, religion and substance use as well as all two-way interactions with gender. Only those interactions with a $P<0.05$ were retained in the final model. CIs were set at 95%.

Results

Sample

At the conclusion of the survey period, 255/828 students had completed the survey (31 per cent) with 188/828 students meeting inclusion criteria (23 per cent) and thus were used for statistical analysis. Females comprised 82 per cent of respondents (F=155, M=33) and respondent age ranged from 18 to 48 (M=24.4, sd=4.1).

Table 1 Descriptive statistics, Cronbach's α values and interpreted reliability for the nine subscales

Scale	n	Mean	sd	Range		Cronbach's α	
				Min	Max	Value	Interpretation
Emotion-focused coping strategies							
Emotional support	192	5.58	1.65	2.00	8.00	0.80	Good
Positive reframing	193	5.19	1.59	2.00	8.00	0.80	Good
Humour	192	4.92	1.89	2.00	8.00	0.88	Good
Religion	193	2.93	1.65	2.00	8.00	0.90	Excellent
Problem-focused coping strategies							
Planning	192	5.76	1.41	2.00	8.00	0.72	Acceptable
Active coping	191	5.70	1.41	2.00	8.00	0.76	Acceptable
Instrumental support	192	5.35	1.76	2.00	8.00	0.81	Good
Dysfunctional coping strategies							
Self-blame	193	5.61	1.62	2.00	8.00	0.72	Acceptable
Substance use	193	3.04	1.55	2.00	8.00	0.91	Excellent

Descriptive statistics and reliability

Descriptive statistics and Cronbach's α values are reported in table 1 for the nine subscales used in data analysis. Reliability varied from unacceptable to excellent. The denial (0.42) and self-distraction (0.45) subscales were rated as unacceptable; the acceptance (0.57) and behavioural disengagement (0.60) subscales were rated as poor and the venting (0.63) subscale was rated as questionable. Subscales that were unacceptable, poor or questionable were not included in general linear models or independent samples *t* test.

The main emotion-focused coping strategy used by surveyed students was emotional support, with religion the least common strategy. Overall, more students used problem-focused strategies compared with emotion-focused or dysfunctional strategies, with high values for planning and active coping. The most common dysfunctional strategy used was self-blame.

Differences in coping strategies between male and female students

There was a significant difference in mean scores between males and females for emotional support (M=4.96 sd=1.33 v M=5.71 sd=1.69, respectively; t(190)=−2.37, P=0.019), instrumental support (M=4.52 sd=1.54 v M=5.53 sd=1.76, respectively; t(190)=−3.07, P=0.002) and humour (M=5.79 sd=1.75 v M=4.74 sd=1.88, respectively; t(190)=2.96, P=0.003). These results suggest that as coping strategies, females demonstrate more use of instrumental and emotional support, while males demonstrate more use of humour.

Relationships between coping strategies and self-stigma

Relationships between self-stigma, coping strategies and gender were examined (table 2). The regression indicated that three predictors and one two-way interaction explained 16 per cent of the variance observed: (R^2=0.161, F(5, 1)=8.197, P=0.001). Self-stigma was predicted by self-blame (B=0.941, P=0.002), instrumental support (B=−1.310, P=0.001) and gender (B=−8.771, P=0.041). This suggests that greater self-blame, less instrumental support and male gender are related to higher self-stigma.

Table 2 Final regression model of variables associated with self-stigma

Variable	B	df	*F*	P value	95% CI	
					LL	UL
Instrumental support	−1.310	1	21.302	0.001	−1.870	−0.750
Humour	−0.287	1	2.731	0.100	−0.850	0.276
Self-blame	0.941	1	9.721	0.002	0.345	1.536
Gender	−8.771	1	4.252	0.041	−17.163	−0.378
Gender and humour	1.779	1	6.091	0.015	0.357	3.202

LL, lower limit; UL, upper limit.

Figure 1 illustrates the two-way interaction between gender and humour suggesting that as males use more humour as a method of coping, their self-stigma score increases (B=1.779, P=0.015). Humour is not related to self-stigma in females. Specifically, the slope for males is 1.492, thus for every one unit increase in humour there is an increase of 1.492 in self-stigma score in males.

Discussion

The aim of the current study was to investigate the type and frequency of coping strategies used by veterinary students in Australia as well as to explore relationships between self-stigma and coping strategies. Female veterinary students reported more use of instrumental and emotional support as coping strategies, while male veterinary students demonstrated more use of humour. Self-stigma was related to less instrumental support, greater self-blame and gender.

Review of mean values for the coping strategy subscales analysed indicated that the problem-focused coping strategies of planning how to best handle the situation and actively coping by trying to remove or avoid the stressor were used most frequently by survey respondents. The emotion-focused coping strategy of seeking moral support, sympathy or understanding from one's peers was the next most frequent coping strategy used. These three strategies are positive coping strategies that help people adapt effectively to the situations they are facing.[15] The use of some of these

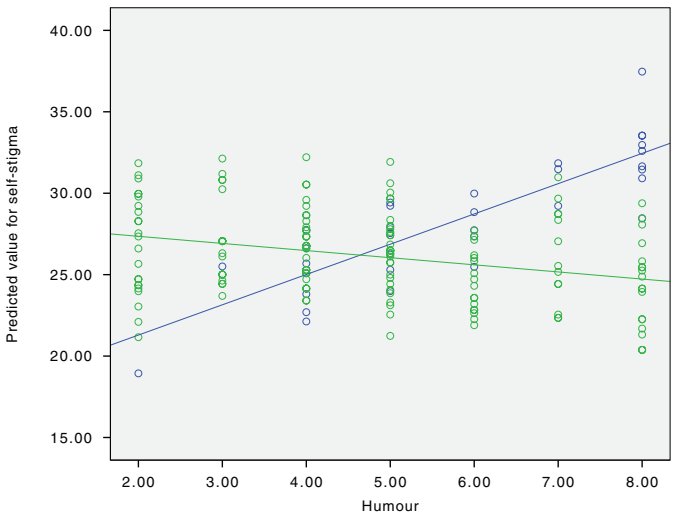

Figure 1 The two-way interaction between gender and humour.

positive coping strategies in veterinary students is consistent with other studies.[5 14]

Gender differences were observed for self-stigma in seeking psychological help. Being male correlated with higher self-stigma, meaning that males may feel more stigma about seeking psychological help than females. This is consistent with other studies[21 22 43] and may indicate a gender role conflict in seeking professional counselling support. This conflict may arise from gender role socialisation that portrays males as stoic and independent and the thought of reaching out for psychological help may conflict with this self-image and cause self-stigma in males.[46] Pederson and Vogel[47] found males identifying with gender role conflict reported self-stigma about therapy and were less inclined to seek counselling, particularly when they need to disclose distress. While the current study did not examine gender role conflict and attitudes to disclosing distress, it is important to consider the potential impact of this on males in the veterinary profession. Further research is needed to explore strategies that best support male veterinarians' wellbeing.

Gender differences in coping strategies have been observed in previous studies. For example, women were significantly more likely to use emotional support in coping with stressors than men,[48] and female adolescents were more willing to use emotional and social support to cope with school-related stressors than males.[49] Females' greater use of seeking comfort and emotional support from others (emotional support) as well as seeking help from others (instrumental support) potentially ameliorates the self-stigma of seeking psychological help.

We found that male respondents relied more on humour as a coping strategy. Humour is a positive emotion-focused strategy for dealing with stressors and fostering resilience.[50] In a study of tertiary students, use of humour was more difficult but more effective than serious reappraisal in downregulating negative emotions and upregulating positive emotions.[51] In another study comparing high sense of humour with low sense of humour in undergraduate students, men and women with a high sense of humour were more likely to employ positive coping strategies, including deliberate efforts to resolve a problem and positive reframing of a stressful situation.[52] Higher humour orientation was also associated with greater self-perceived coping efficacy and emotional expressivity among nurses.[53]

Humour may be used by members of the veterinary team to control, shape and manage feelings, in order to create desired impressions for others.[54] However, when used in excess, there is a risk of creating a subculture where humour about challenging issues such as mental health becomes the prevailing coping strategy, when showing concern and/or seeking emotional support may be more effective. The efficacy of humour as a coping strategy may be reduced if it becomes self-defeating.[55] We found that greater use of humour as a coping strategy was associated with greater self-stigma around seeking psychological help for males. As such, humour may transform from an effective coping strategy into a dysfunctional one if psychological help is needed. Thus, excessive reliance on humour may be a marker of an unmet need for psychological help, particularly in male veterinary students. It may be helpful to inform teachers, mentors and peers about this possibility so that they can help students in this situation become more accepting of seeking psychological help.

Greater self-stigma in seeking help was associated with higher self-blame. Self-blame was also the fourth most frequently used coping strategy in this study. Self-blame is a dysfunctional coping strategy people may use for managing mistakes and often involves self-criticism. Adverse outcomes, or mistakes, are common in veterinary practice, often despite the best efforts of the veterinary team.[56] Almost 80 per cent of a sample of recent graduates in veterinary practice admitted to making a mistake which resulted in an adverse event or less than optimal outcome.[57] Veterinarians reported psychological distress ranging from loss of confidence to severe depression, with some signalling intent to leave the profession.[57] It is likely that self-blame and self-criticism exacerbated the negative experience of the mistakes. This possible relationship deserves further research. It is important to note that in the current study, people who reported more self-blame also reported higher self-stigma. The relative frequency with which mistakes occur coupled with the deleterious effects of self-blame and self-stigma may lead to people not accessing psychological support when it is indicated. Furthermore, self-blame and negative self-criticism is often associated with perfectionism.[58] A recent meta-analysis of college students in the USA across a span of nearly 30 years showed increased perfectionism.[59] Millennials were more likely than previous generations to experience high levels of perfectionism and the authors believed this may be related to the higher levels of mental health problems in young people. In light of these findings, it is critical that people with perfectionistic tendencies manage inevitable mistakes without resorting to self-blame. To ensure a high standard of clinical care, veterinary students need to learn how to investigate and learn from adverse outcomes and accept responsibility while avoiding self-flagellation[60] and seeking psychological support as needed.

The effects of negative self-talk and harsh self-criticism, so often accompanied by perfectionistic traits, can also be ameliorated with implementation of self-compassion strategies.[61] Self-compassion involves first noticing one's own distress.[61] Secondly, it involves an appreciation that all human beings experience suffering, thus reducing the apparent isolation of feeling distressed.[61] Finally, offering oneself kindness in the

face of self-criticism and judgement is key.[61] Fostering an understanding of common humanity, in that all human beings experience suffering partly due to fundamental emotional needs such as security and safety, may help reduce the stigma associated with psychological distress. Mindful self-compassion yields positive effects on a variety of wellbeing measures[61 62] and is also associated with resilience in veterinary students.[42] Teaching veterinary students mindful self-compassion strategies may help build resilience and reduce stigma.

Evidence on the effectiveness of interventions to reduce stigma is mixed.[26] While evidence exists of short-term benefits from interventions using first person narratives or social contact designed to reduce stigma around mental ill health, less conclusive evidence exists for their long-term effectiveness.[63] Social contact is thought to break down barriers between groups of people, effectively providing space for empathy and understanding. Therefore, social contact, perhaps in the form of engaging prominent people with a mental illness to discuss their experience as well as their capacity to flourish, may help destigmatise mental illness and thus reduce self-stigma. There is a need for more research about the effectiveness of short-term and long-term interventions in the veterinary educational and wider veterinary contexts.

A shift in the culture around seeking help for mental health services is required. This is not unique to the veterinary profession and is a challenge shared with many healthcare professions as well as the general community. Interventions designed to reduce stigma may be focused on education, challenging beliefs about the consequences of mental ill health and accessing treatment services, social contact with those who have suffered from mental ill health and/or the use of mental healthcare services.[63–66] Given the importance of resilience in the veterinary profession, it is imperative that wellbeing is discussed during clinical supervision, mentoring opportunities and peer-to-peer interactions, thus facilitating a whole-of-profession approach to reducing stigma in seeking psychological help. Interventions that may be used for students include peer-to-peer mentoring or 'buddy' programmes, mental health or wellbeing events hosted by student societies, guest lectures from experienced veterinarians who talk openly about help-seeking, and workshops with psychologists, counsellors and other health professionals around coping with stressors. Examples that are being/might be used in a veterinary practitioner context are mentoring, peer support/supervision, wellness-themed activities at conferences and wellness-themed continuing professional development.

Help-seeking may be destigmatised as professional bodies come to regard self-care and care for the psychological wellbeing as professional obligations. For example, the Australian Veterinary Association's Draft Code of Professional Conduct incorporates a section on self-care and care for colleagues,[67] while the World Medical Association's Declaration of Geneva requires that doctors pledge that 'I will attend to my own health, wellbeing and abilities in order to provide care of the highest standard.'[68] Additionally, a focus on professionalism (being well in order to best help others) and an employability focus (self-care to build a successful, sustainable and satisfying career)[69] would likely decrease stigma. Insurance providers may be able to reduce stigma by changing policies which penalise help-seeking behaviour[70] and potentially improve resilience by supporting a no-blame culture. These suggested changes may help enhance the resilience of the veterinary profession by supporting professional help-seeking.[16]

Limitations

There are several limitations to this study. First is the cross-sectional study design and statistical analysis which precludes assessment of causality. The sample is relatively representative of the gender distribution of the veterinary students in Australia. However, the response rate is low and thus generalisability of the results may be limited. Non-response bias is a concern in this study. We were unable to ascertain the coping skills of those students who did not respond. Also, the reason to participate may be due to effective coping and low self-stigma and thus capacity to complete the study, or a difficulty with coping and subsequent desire to complete the survey. The low internal reliability of several of the Brief COPE subscales meant that full analysis of a more complete range of coping skills used by Australian veterinary students was not conducted. However, the poor reliability of several of the measures such as venting, acceptance and denial was consistent with the reliability reported in the original development of the scales.[44]

Conclusion

Veterinary mental health and wellbeing is a pressing concern. We found that female veterinary students reported more use of instrumental and emotional support as coping strategies, whereas male students reported more use of humour. Self-blame, less instrumental support and male gender were related to higher self-stigma. Improving the coping strategies of veterinary students and reducing the stigma and self-stigma surrounding mental ill health is important to improve the wellbeing and resilience of the veterinary profession. This information may be used for developing strategies to increase professional help-seeking in veterinary students.

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