

## **The Veterinary Community: A Population At-Risk for Suicide**

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### **Abstract**

When individuals enter the veterinary field, they discover early the profession comes with hardship and daily challenges. Additionally, it is no secret to those within the profession that the veterinary community faces a serious problem with suicide. Whether the discussion has become more prevalent from increased social media coverage or a true increase in suicide rates, the community is painfully aware of how many veterinarians take their lives every year. Between the years of 2003 and 2014, data shows a total of 202 veterinary professional deaths from suicide or of undetermined intent (Witte et al., 2019). The purpose of this literature review is to explore the rising rates of veterinary suicide and the many causes that may lead to suicide amongst veterinary professionals. Factors frequently studied and thought to contribute to veterinary professional suicide include self-stigma and social stigma in seeking psychological help or suffering from anxiety, depression, or burnout. The goal of this review is to educate mental health professionals on the importance and increased need for support in the veterinary community.

*Keywords:* veterinarian, veterinary student, suicide, mental health, stigma

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## **Stigma in Seeking Psychological Help**

Veterinary school can be a challenging time for students and common stressors can lead to negative mental health outcomes. McArthur et al. (2019) examined the relationship between academic stressors and the social stigma in seeking psychological help. Recognized academic stressors in veterinary education include, but are not limited to, the fast pace and volume of expected learning material, discrepancies in time management skills, concerns about being negatively compared with peers, and acknowledging new ethical dilemmas. Stressors recognized outside of academic studies include interpersonal conflicts, health concerns, and financial concerns. These stressors are known to have a positive correlation with mental health problems such as stress, anxiety and depression.

The term stigma once was defined as a “physical mark of disgrace”, now it is defined as “a strong feeling of disapproval that most people in a society have about something, especially when this is unfair” (McArthur et al., 2019). This study identifies a strong relationship between gender and self-stigma, concluding men report higher self-stigma in seeking psychological help in comparison to women. The gender differences are attributed to women being more likely to rely on the use of instrumental and emotional support as a coping strategy, whereas men rely more commonly on humor as a dysfunctional coping strategy (McArthur et al., 2019, p. 5). In the counseling and psychology field, instrumental support is typically defined as offering help or assistance in a tangible and/or physical way, whereas emotional support involves acting as a confidant for someone. It was reported that those who were affected by mental health stigma feel embarrassment, shame, low self-esteem, and low self-confidence associated with their mental health struggles. Additionally, students report a fear that being open about their mental illness or seeking support will negatively impact their academic record. McArthur et al. (2019) concludes

greater self-stigma in seeking mental health support is associated with higher self-blame, a dysfunctional coping strategy commonly seen in veterinary students. Furthermore, 80% of the sample admitted to making a mistake that resulted in an adverse event or less than optimal outcome. This can quickly lead to veterinarians facing psychological distress, ranging from a lack of confidence to severe depression. It is recognized those who report feeling more self-blame also report higher self-stigma to seeking psychological support.

In a similar study, Karaffa and Hancock (2019b) focused on veterinary students' willingness to seek mental health support as it relates to public stigma, self-stigma, and personal attitudes. The study included 573 veterinary students currently enrolled in accredited Colleges of Veterinary Medicine (CVMs) in the United States. It was found more students were willing to seek psychological help for issues regarding substance abuse, traumatic experiences, and anxiety than they were to seek services for sleep problems, interpersonal conflicts, and career or academic concerns. Students' perceptions of their peers' willingness to seek mental health support was also studied, and it was found study participants frequently underestimated other students' willingness to seek support (2019b, p. 462). This finding demonstrates pluralistic ignorance, a phenomenon where members of a group hold a particular belief about an attitude or behavior, but they assume that others around them feel differently than they do (Karaffa & Hancock, 2019b, p. 460).

Lastly, it was determined by Karaffa and Hancock (2019b) that public stigma may be internalized as self-stigma, which in turn may minimize willingness to seek mental health support. Similar to the study performed by McArthur et al. (2019), in this study women were found to have more positive attitudes toward seeking psychological help compared to men. Additionally, the social stigma of seeking professional help can be perceived as a sign of

personal weakness or incompetence (Karaffa & Hancock, 2019b, p. 459). A survey of a veterinary school in the United Kingdom found students were less inclined to seek counseling on campus when there was a lack of anonymity due to the concern regarding the stigma of seeking care. The veterinary community is very small; therefore, the fear of lack of anonymity and social stigma is even more significant. By having more open conversations about the positive aspects of seeking help will eventually lead to a decrease in public and social stigma.

### **Stress and Anxiety**

Research shows enrollment in higher education programs is associated with high levels of stress and anxiety. Veterinary students are no exception. Eighty-eight percent of veterinarians have found the field to be very stressful, which leads to one in 11 being diagnosed with serious psychological distress (Nett et al., 2015). Nahar et al. (2019) focuses on the influence of chronic stress on the mental health of veterinary students. The authors found stressors are commonly multifactorial and include sleep concerns, the pressure of constant evaluation, academic difficulties, poor physical health, problems fitting in with peers, and the time demands associated with veterinary school. Nahar et al. (2019) surveyed 264 veterinary students over a three-week period, asking questions about gender, race/ethnicity, current grade point average (GPA), academic class, marital status, children, employment, and living status. A four-item patient health questionnaire (PHQ-4) was administered to measure the students' stress and anxiety levels. Stress levels were found to be elevated and exceeded those when compared to a similar demographic of age and gender in the general population. There was a recognizable relationship between gender and GPA in which female students exhibited higher levels of stress with a GPA less than 3.0. Additionally, women were three times more likely to exhibit anxiety than male students. This is clinically relevant to the veterinary community being at risk for suicide due to

women being the majority of enrolled veterinary students across the United States. Along with high stress levels, veterinary students demonstrate high anxiety levels. Nahar et al. (2019) found that 52.3% of the study sample met clinical criteria for a generalized anxiety disorder.

A second study written by Karaffa and Hancock (2019a) focused on a 573-person sample and investigated the prevalence of mental health concerns among veterinary medical students. The Generalized Anxiety Disorder 7-item (GAD-7) scale was used to assess symptoms of anxiety in veterinary medical students. It was found that 36.2% (205 individuals) of the sample scored at or above the clinical cut-off score on the GAD-7 (Karaffa & Hancock, 2019a). Women also scored significantly higher for levels of anxiety when compared to men. Those with reported anxiety symptoms indicated these concerns make it “very difficult” or “extremely difficult” to participate in their work, home life, or get along with others.

Bostock et al. (2018) found mental and physical well-being are often connected. Those who exhibit high levels of mental distress may be more likely to utilize sick days, leading to losses in learning opportunities for students. Additionally, mental health concerns can lead to a decreased academic achievement, reduced self-confidence, and overall competence. It was hypothesized anxiety can have a negative effect on spatial working and long-term memory. This can impact a veterinary students’ ability to learn practical skills and retain course material. Often, veterinary students feel the need to be high achieving, dedicated individuals, which puts them at risk of imposter syndrome. Imposter syndrome, or the imposter phenomenon, refers to feelings of disingenuousness typically by high achievers (Clance & Imes, 1978). This feeling of imposter syndrome leads to a fixed mindset of the need to be a perfectionist. Impostors have a difficult time accepting their achievements and believe it is a result of their hard work, luck, or knowing the right people. They believe that they have betrayed others into believing they are something

they are not (Clance & O'Toole, 1988). Many of these fears can have debilitating effects on the individual's well-being, which can put individuals at risk for suicidal behavior (Bostock et al., 2018). Bostock et al. uses a five-point scale to categorize anxiety levels. The findings indicate higher anxiety scores are associated with lower mindset scores. Results show 60% of students attending a university teaching hospital have moderate to very severe anxiety. Anxiety is also linked to other mental health ailments such as depression.

### **Depression**

Chronic and untreated stress and anxiety have been linked to the development of debilitating conditions such as depression. Nahar et al. (2019) reported that 22.6% of veterinary students screen positive for depression using the PHQ-4. This statistic is compared to a 14.3% and a 16.6% depression rate for medical school students and the general population, respectively. Additionally, those who identify as a non-White and those living in on-campus housing are more likely to screen positive for depression. Women exhibit higher rates of depression than men, similar to anxiety (Nahar et al., 2019).

Karaffa and Hancock (2019a) investigated veterinary student depression rates using the Patient Health Questionnaire (PHQ-9). Results show 18% of students indicate the depressive symptoms make it *very difficult* or *extremely difficult* to participate in their work, home life, or get along with others (Karaffa and Hancock, 2019a, p. 451). A similar study conducted by Killinger et al. (2017), evaluated levels of depression using the Center for Epidemiological Studies Depression Scale (CES-D), a 20-item inventory measuring the cognitive, affective, and behavioral symptoms of depression. This study shows that 66% of veterinary students report scores of mild to moderate depression. This result score is higher than other populations mentioned in the study: college students (41%) and human medical students (23%). Similar to

other studies mentioned in this literature review, Killinger et al. found gender plays a significant role in depression rates. Female students are shown to have higher levels of depression than male students across all four years of veterinary school. Rates of depression are also associated with training year: the mean depression score of second- and third-year veterinary students is significantly higher than fourth-year veterinary students. It is hypothesized that second and third year is found more stressful due to the start of clinical responsibilities such as involvement in surgery, diagnostic errors, patient death, and communicating with difficult or angry clients (Killinger et al., 2017). The way students learn to cope, or not cope, with this new development of stress throughout their academic years will only follow graduation.

### **Suicide**

The veterinary profession has numerous factors contributing to suicide risk. Veterinary students internalize stress, anxiety, and the pressure to appropriately diagnose and treat their patients. Along with their educational studies, students are required to learn and develop their interpersonal and communication skills and have human interactions with pet owners. Often times, it can be difficult to teach veterinary students how to appropriately empathize and communicate with pet owners who present with strong emotions of grief and anger. Another risk factor for veterinary students are the ethical dilemmas and responsibilities that come with performing a euthanasia or unnecessary procedures such as tail docking, ear cropping or feline declawing (Killinger, 2017). The last risk factor is how students face the possibility of physical harm from the animals which they are caring for through bites, kicks, scratches, and possible exposure to infectious diseases.

There is no published literature that specifically investigates veterinary student suicide. However, there is evidence demonstrating the increased suicide risk for the veterinary

community as a whole. A 2008 study, which surveyed 701 licensed veterinarians in the state of Alabama, showed 66% had been diagnosed with clinical depression since starting veterinary school. Aside from personal factors, work-related stressors can lead to job burnout. Nett et al. (2015) describes job burnout as “a prolonged psychological response to ongoing emotional and interpersonal occupational stressors associated with exhaustion, cynicism, and a sense of ineffectiveness” (p. 945). They performed a study evaluating the prevalence of risk factors for suicide among U.S. veterinarians. A survey was distributed online for which there were 11,627 respondents. Survey questions included demographics, practice setting, history of mental illness, attitudes toward seeking psychological help, and job satisfaction. It was found 31% of the sample had previous depressive episodes, 17% had suicidal ideation, and 1% had attempted suicide since graduating from veterinary school. There were a total of 19% respondents who were currently receiving treatment for a mental health condition, whereas 59% were not receiving any treatments. Evidence supports veterinarians have a more negative attitude towards seeking psychological help when compared with the general U.S. population. In the study by Nett et al. (2015), 89.4% of veterinarians believed treatment could help a person cope with a mental illness, whereas 93% of the general US population believed the same statement. Additionally, compared with 60.2% of US adults, only 31.8% of veterinarians agree that others have positive attitudes toward those with mental illness (Nett et al., 2015, p. 950). Lastly, the most common stressor found to be associated with veterinary medicine was the demands of practice.

Veterinarians are found to have lower rates of non-fatal suicide attempts when compared with the general US population (Nett et al., 2015). This is likely because of veterinarian’s access and knowledge about lethal means, or euthanasia practice. It has been determined in comparison to the general population regarding suicide, there is an increased risk of 2.1 and 3.5 percent for

male veterinarians and female veterinarians, respectively. In Witte et al. (2019), approximately 27% of the general population who died by suicide had been in contact with a mental health professional in the few months prior to their suicide. Because of the high rate of stigma surrounding mental health in the veterinary field, the authors expect the rate to be much lower for veterinarians. Of a 73-person sample size, 74% of suicides were identified as male and 26% were identified as female (Witte et al., 2019). Additionally, when investigating race and ethnicity, it was found that 97% of veterinary suicides were white or non-Hispanic. Poisonings by the means of pentobarbital, the drug used in a euthanasia process, or opioids were the most common cause of death, and most of the suicide attempts, 72%, occurred in the individual's home.

### **Conclusion/Discussion**

In conclusion, it is undeniable the veterinary community, especially veterinary students, are an at-risk population for mental health illness and suicide. There are numerous obstacles veterinarians face daily that can lead to a negative mental health outcome. It has been proven veterinarians have higher rates of stigma surrounding seeking psychological help, decreasing the number of individuals willing to seek mental health care. Contributing factors leading to an increased risk of mental illness include academic stressors such as the fast pace and volume of expected learning material, time management, the fear of being compared to others, and experiencing new ethical dilemmas. Furthermore, non-academic stressors of interpersonal conflicts, health concerns, and financial concerns influence the risk of mental illness. In addition, it is proven veterinarians are at risk for increased anxiety and depression levels when compared to the general US population. Women are at higher risk for depression and anxiety when compared to men and make up a significant proportion of veterinary classes in the United States

today. Finally, mental illness, stress and stigma surrounding seeking help are all contributing factors leading to suicide. The veterinary community is an underserved and underrepresented population in the mental health field. Mental health professionals need to be aware of these needs when working with those in the veterinary profession. Together, we need to destigmatize mental health treatment for the veterinary community and aid in developing coping strategies for their stressful job. This community deserves and needs to be provided with more support, mental health resources, and mental health advocacy.

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