

Ireland's Veterinary Professionals: An Assessment of Compassion
Fatigue, Stress and Self-Care Participation

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Declaration

I declare that this thesis that I have submitted to Dublin Business School for the award of H.Dip. Psychology is the result of my own investigations, except where otherwise stated, where it is clearly acknowledged by references. Furthermore, this work has not been submitted for any other degree.

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Abstract

This study aims to highlight current trends surrounding compassion fatigue, stress and self-care participation among Ireland's Veterinary professionals in order to ultimately preserve a high standard of patient care. 182 participants comprising of qualified Veterinary Surgeons, Veterinary Nurses, Animal Care Assistants and Veterinary students completed an anonymous online mixed methods questionnaire that assessed stress, compassion satisfaction, burnout, and self-care participation. The amount of stress experienced by participants increased as the number of years spent working within Ireland's Veterinary industry increased, while compassion fatigue was not influenced by this. Self-care predicted compassion satisfaction, but questionably, had no impact on stress and burnout for this sample. Overall, results indicated the crucial requirement for future research and more mental wellbeing support for an animal caregiving population that has gone virtually unacknowledged in the conversation surrounding mental health, despite their valuable contribution to Irish society.

Introduction

1.1 Overview: Mental Health and Caring Professions

Compassion fatigue (CF), burnout, other job stress, and even suicide are widespread problems for the Veterinary community across the USA and the UK. Veterinary Surgeons (Vets) in particular are proven to be at elevated risk of suicide, with a proportional mortality ratio of around four times that of the general population (Volk et. al, 2018; Bartram, Yadegarfar, & Baldwin, 2009). Low levels of mental wellbeing (including anxiety and depression), suicidal thoughts and negative home-work interactions are ongoing problems for individuals working within the Veterinary profession (Bartram et. al, 2009).

Although initiatives have been established by some organisations, particularly in the UK, which aim to combat the general lack of mental wellbeing among Veterinary professionals, research results from the USA and UK shed light on the mental health of an animal caregiving population that has largely been ignored (Moffett, 2017) (Dunn et. al, 2019). In order to assess and potentially address the current mental health trends among Irish Veterinary professionals, inspiration can be sought from other caring professions, whose mental wellbeing needs have been highlighted within previous literature.

Various studies on doctors suggest that high levels of mental distress exist within this profession, most commonly in the form of work-related stress, burnout, depressive symptoms and anxiety (Tyssen, 2019; Kinman & Teoh, 2018). Cohen, Winstanley & Greene (2016) showed that 60% of 1,954 respondents had experienced mental illness.

Medical students and younger doctors are particularly susceptible to mental distress, with on-call work exacerbating this. A combination of conscientiousness (or obsessiveness) and neuroticism seems to influence levels of school and work stress (Tyssen, 2019). Young and trainee doctors are least likely to disclose any negative mental health experiences, with

label concerns, confidentiality concerns and misunderstanding the support structures available highlighted as the main obstacles to disclosure (Cohen et. al, 2016).

General Practitioners (GPs) are especially susceptible to burnout in connection with emotional exhaustion, and doctors in general are more likely to work while sick due to career concerns, the assumption that they must appear “well” or “healthy” at all times, and their awareness of their responsibility regarding patient care and colleague assistance. It should also be noted that addiction is a very common problem among healthcare practitioners, and it is estimated that 1 in 5 doctors experience drug and/or alcohol addiction at some point in their career (Cohen et. al, 2016).

The culture and organisation of a caring profession can severely impact on mental health. High perceived workload, work complexity, persistent changes in healthcare, low levels of support and bullying/harassment all significantly increase the risk of mental distress among doctors (Kinman & Teoh, 2018). It has been well established via research that workplace support is crucial, and that it is vital to build a culture that explicitly recognises the physical and mental wellbeing risks to practitioners working in a caring role. Consistently promoting positive approaches to mental health and clear self-care methods is of the highest importance. Mental wellbeing and self-care initiatives should be immediately introduced and supported by third level institutions when students begin their chosen courses (Kinman & Teoh, 2018).

The above findings are similar to the findings highlighted within the Veterinary profession. In the Merck Animal Health Veterinary Wellbeing Study (2018), a survey of practicing and non-practicing Veterinary professionals showed that 25% of the 3,540 respondents thought of suicide and 1.6% have attempted it. All respondents scored slightly lower in wellbeing when compared to the general employed population of the USA, and 33%

of them would not recommend their profession to a friend or family member. 1 in 20 respondents were in serious psychological distress, even though only 14% of respondents with this issue stated that an Employee Assistance Programme was in place at work (Volk et. al, 2018).

Nett et. al (2015) showed that 31% of 11,627 respondents experienced depressive episodes since leaving Veterinary College. 1 in 11 respondents experienced serious psychological distress, and 1 in 6 experienced suicidal thoughts. Like student/younger doctors, Veterinary Medicine students are less likely to seek help if in distress due to self-stigma, and most respondents perceived that their peers would not seek help either (Karaffa & Hancock, 2019). Another study showed that one-third of veterinary medical students surveyed in their first and second semesters reported depression levels above the clinical cut-off (Hafen, Reisbig, White & Rush, 2008). Of 475 students that responded to the question “Have you ever thought of taking your own life, even if you would not really do it?” in the study discussed by Cardwell, Lewis, Smith, Holt, Baillie, Allister & Adams (2013), 25% of respondents answered ‘yes’.

Research focussing on Veterinary Nurses (VNs) in isolation is rare, however a study done in the UK showed that 92.8% of 992 respondents identified as being at moderate to high risk of burnout. A review by Lloyd and Campion (2017) focusses on occupational stress, self-care and resilience for VNs, valuably highlighting unique occupational stressors such as euthanasia. However, no psychological measures were used to assess a sample in this study.

1.2 Compassion Fatigue (CF)

CF describes work-related stress that manifests within individuals who work in a caring profession, such as doctors, nurses, physiotherapists, occupational therapists and Veterinary professionals. It is a “cost of caring” that impairs the physical, emotional, social and spiritual

health of practitioners as a result of cumulative work-related stress and constant interactions that require high levels of empathic engagement. This ultimately impacts the quality of the healthcare services that practitioners provide (Sinclair, Raffin-Bouchal, Venturato, Mijovic-Kondejewski & Smith-MacDonald, 2017; Sorenson, Bolick, Wright & Hamilton, 2016).

Human Nurses are at the centre of many studies on CF, even though they often experience professional satisfaction from their work. Their repeated exposure to critical illness and the traumatic experiences of others puts them at high risk for CF. Post-traumatic stress disorder (PTSD) can also affect individuals who are aware of a traumatic event that impacted another person with whom they have interacted with or interact with frequently. This is known as secondary catastrophic stress reaction (Sorenson et. al, 2016), or secondary traumatic stress (STS). A direct encounter with another person's trauma therefore puts a nurse at high risk of CF, which usually presents acutely, unlike burnout, which presents as gradual disengagement due to feelings of powerlessness and job dissatisfaction. CF and burnout have been noted as common in emergency department (ED) nurses (Hinderer, VonRueden, Friedmann, McQuillan, Gilmore, Kramer & Murray, 2014; Cocker & Joss, 2016). Dominguez-Gomez & Rutledge (2009) showed that the majority of respondents working in EDs reported symptoms of traumatic stress and 33% of them met the criteria for STS (Sacco, Ciurzynski, Harvey & Ingersoll, 2015).

In the Veterinary profession, CF has been explored internationally, but CF assessment among professionals and students is grossly lacking within Ireland's Veterinary community. Sleep disturbance, social withdrawal, hypervigilance, dissociation, and, on some occasions, self-medication are just some of the symptoms and/or behaviours that have been documented within the international Veterinary community due to persistent exposure to the stress and trauma of others (both patients and clients). Stressors that are unique to the Veterinary industry, such as euthanasia and the coordinated care of both owner and pet, render

Veterinary professionals vulnerable to CF very often. Vets and VNs share the same experiences and risks that make them vulnerable to CF, however both professions have their own risks. The ethical decision to recommend euthanasia to an animal owner, and then subsequently euthanise said animal is an occurrence that happens almost daily for Vets. Both VNs and Animal Care Assistants (ACAs), in comparison, do not have any say in the decisions surrounding an animal's treatment plan or euthanasia, and evidence suggests that they often feel helpless or useless if they have opinions on treatment plans that go unnoticed (Cohen, 2007). Veterinary students attend work placements, beginning in their first year of study. Some are also employed by Veterinary practices on a part-time basis. Therefore, students may experience the same stressors as qualified professionals during a typical workday but may still be developing the skills required to address CF, and so may be more vulnerable to CF symptoms (McArthur, Andrews, Brand & Hazel, 2017).

It has been found that inadequate communication skills are related to higher levels of stress and tension in the workplace for individuals in caring professions (Bartram, Sinclair & Baldwin, 2010). However, further research on communication and workplace culture within the Veterinary community is needed (Hess-Holden, Jackson, Morse & Monaghan, 2019).

1.3 Stress

Occupational stress describes the adverse reaction that employees experience due to excessive emotional and/or physical pressure within the workplace. Stress can emerge from low levels of autonomy, lack of recognition, and volume of work. Within the Veterinary industry, environmental factors, hours worked, client expectations, and unexpected outcomes relate to high stress levels. Work-related stress is a major factor in the causation of mental illnesses among Vets (Kim, Patterson, Nahar, & Sharma, 2017). General factors that influence stress include maintaining knowledge and technical skills, personal and working

relationships, finances, personal expectations, career concerns, responsibility and difficult life circumstances. Some studies show that females are particularly vulnerable to stress and stress related illnesses within the Veterinary community and are more likely to use maladaptive coping strategies e.g. escapism and substance misuse in order to deal with negative emotional experiences (Emmett, Aden, Bunina, Klaps, & Stetina 2019).

Previous research shows that euthanasia contributes to emotional strain on Vets (Dawson & Thompson, 2017). Vets perform euthanasia regularly and without any interventions aimed at managing stress, such as compulsory breaks in between euthanasia appointments, or breaks between euthanasia appointments and other appointment types. Animal euthanasia is also an important source of job stress for animal shelter employees (Reeve, Rogelberg, Spitzmuller, & Digiacomo, 2005). Various factors contribute to the manifestation of euthanasia related stress, which therefore emerges in many ways, from negative effects on concentration to a direct influence on feelings of happiness and self-worth (Reeve et. al, 2005; Scotney, McLaughlin & Keates, 2015). Rogelberg et. al (2007) found that staff turnover rates at animal shelters were related to euthanasia rates. This study suggests that euthanasia negatively impacts emotional wellbeing, as does the Vet's responsibility to euthanise healthy companion animals at an owner's insistence, regardless of the Vet's thoughts and feelings about this decision (Rogelberg, Reeve, Spitzmüller, DiGiacomo, Clark, Teeter & Carter, 2007; Scotney et. al, 2015; Fogle & Abrahamson, 1990). A study by Anderson, Brandt, Lord & Miles (2013) showed that the following were the most prevalent reactions among animal shelter workers who were regularly participating in euthanasia: Sadness (83.3%), crying (68.5%), anger (68.5%), depression (57.4%), irritability (55.6%), grief (51.9%), and rationalization (51.9%).

Like CF, personality is also said to contribute to stress levels, with some studies showing that neuroticism and conscientiousness have consistently been found to correlate

with stress. Veterinary professionals are considered to be “high achievers”, and perfectionism is a common trait found within the Veterinary community, which leads to excessive negative judgements towards one’s own work (Dawson & Thompson 2017).

The needs of Veterinary support staff, i.e. VNs and ACAs, can frequently go unnoticed within the Veterinary workplace. Foster & Maples (2014) found that the duties of Veterinary support staff range widely, are of varying quantities, always changing, and sometimes undefined. VNs in particular are surgical/theatre nurses, post-operative care nurses, hospital ward nurses, radiographers, rehabilitation nurses (including physiotherapy and hydrotherapy), anaesthetists, and laboratory nurses (e.g. completion of blood tests, urine tests etc). All of these duties could be fulfilled by one VN during a typical workday. It has been found that Veterinary support staff also often take the blame for negative outcomes in veterinary settings. The most common stressors specific to Veterinary support staff appear to be frequent contact with dead and dying patients, heavy and fast-paced workload, and conflicts with veterinarians. Ethical conflicts may also contribute to the mental health of this workforce (Foster & Maples, 2014). Despite these findings, research surrounding Ireland’s Veterinary professionals and stress is lacking.

1.4 Self-Care

Self-care can be defined as the practice of taking an active role in protecting one's own well-being and happiness, in particular during periods of stress (Cook-Cottone & Guyker, 2016). A deficit in self-care ultimately compromises the use of self in delivering compassionate care and therapeutic services to others.

Within the human healthcare system, directing compassion and care towards oneself is often given little consideration by healthcare practitioners, and sometimes by the organisations which govern and/or support these professionals. Therefore, practitioners often

cope with negative emotional experiences by distancing themselves from patients in order to avoid feelings of sadness, distress, helplessness and excessive/exhausting empathy. This results in practitioners essentially “dehumanising” patients (Mills, Wand & Fraser, 2015). It is possible that the same pattern occurs within the Veterinary industry, particularly due to constant contact with euthanasia and dying patients.

A study by Sansó, Galiana, Oliver, Pascual, Sinclair & Benito, (2015) discusses how “self-care and awareness positively predicted professionals’ competence in coping with death, and this, together with awareness, positively predicted compassion satisfaction and negatively predict CF and burnout”. Veterinary professionals are expected to consistently commit to high levels of compassion, often due to the valued place that human-animal bonds currently have within Western society in particular. While self-care and self-awareness assists with this commitment, some human nurses have argued that emphasis on self-care is contrary to the compassionate care of others and may be a selfish activity. However, practicing self-care routines may mean that individuals positively influence their patients to do the same (Brannick, DeWilde, Frey, Gluckman, Keen, Larsen & Helke, 2015). Within the Veterinary industry, practicing and discussing self-care routines may inspire colleagues and pet owners; However, research on this is needed.

Research shows that positive coping strategies can reinforce compassion satisfaction and lessen CF for human nurses. Mentorship, increased teamwork and team bonding, and commitments from workplace organisations can decrease stress and CF, and access to helplines and health-care professionals are also incredibly beneficial (Brannick et. al, 2015).

International studies show that self-care routines are highly important for preventing and treating CF in Veterinary professionals. Creating a safe place within the workplace has been proven to assist in stress reduction, particularly following emotionally taxing

appointments such as a euthanasia, or a post-operative consultation with a distressed client (Holcombe, Strand, Nugent & Ng, 2015). Kogan, Schoenfeld-Tacher, and Hathcock (2012) found that 65% of staff and students within Veterinary colleges felt a need for an increase in the available counselling services, as many Veterinary students experience anxiety, depression, substance/alcohol misuse, and suicidal ideation. These researchers also found that owning a companion animal reduces stress levels, where supports such as “Doggy Day Care” are put in place for students who are busy with their academic endeavours. Essentially termed “Service Animals”, companion animals/pets are particularly beneficial during peak times of stress, such as examination periods (Kogan, Schoenfeld-Tacher, Hellyer & Rishniw, 2019). Universities often introduce several service animals to college campuses or examination centres in order to promote stress reduction.

Research surrounding self-care within Ireland’s Veterinary industry, as well as interventions in order to manage CF and stress, are devastatingly lacking. Important and valued organisations within the Irish Veterinary community offer information in connection with mental health support and make this information readily available via their websites. They offer contact details for organisations such as the Health Service Executive (HSE), and helplines such as Samaritans. However, on further inspection of international Veterinary organisations such as the American Veterinary Medical Association (AVMA), Ireland’s international counterparts seem to offer more assistance to their Veterinary professionals in comparison. While Ireland’s Veterinary organisations show care and attention to their members’ mental health by sharing invaluable and helpful contact details for several organisations, the AVMA furthers this approach by discussing self-care at length on their website, mentioning the 9 Dimensions of Wellbeing, giving 100 tips on wellbeing, and even introducing the Professional Quality of Life Scale (ProQOL) to their members, to name but a few examples. While the current approach to mental health by Ireland’s Veterinary

organisations is needed and valid, self-care among Ireland's Veterinary professionals still seems to be a new concept when compared to international Veterinary communities, with much room present for expansion of positive discussions, psychological research, and the creation of intervention methods.

1.5 Research Aims

This research examines mental health among Ireland's Veterinary professionals, and aims to achieve the following:

1. Begin to highlight the current mental wellbeing trends (regarding CF, stress and self-care) among Ireland's Veterinary professionals.
2. Assess whether or not the amount of years spent working within the Veterinary industry influences CF and stress levels for Veterinary professionals in Ireland.
3. Assess whether or not self-care participation, or lack of, influences CF and stress levels for Veterinary professionals in Ireland.
4. Raise awareness in relation to the importance of mental wellbeing within the Irish Veterinary industry and make suggestions surrounding the maintenance of mental wellbeing within this industry.
5. Promote more positive and consistent patient care by encouraging Ireland's Veterinary professionals to adequately care for themselves so that they have the capability of caring for their patients to the highest standard possible.

1.6 Hypotheses

Main Hypothesis: Ireland's Veterinary professionals are prone to CF and stress and lack self-care practices in order to manage negative emotional experiences that occur during the workday.

Hypothesis 1: There will be a significant difference between stress and the amount of years working in the Veterinary industry.

Hypothesis 2: There will be a significant relationship between self-care participation and compassion satisfaction among Veterinary Professionals.

Hypothesis 3: There will be a significant relationship between self-care participation and burnout among Veterinary Professionals.

Hypothesis 4: There will be a significant relationship between self-care participation and stress among Veterinary Professionals.

Hypothesis 5: There will be a significant difference in CF (compassion satisfaction and burnout) due to the amount of years spent working in the Veterinary industry.

2.1 Participants

This study included 182 participants ($n = 182$). 18 (10%) of these were qualified Vets, 103 (57%) VNs, 6 (3%) ACAs, 52 (29%) Veterinary students (Vets/VNs/ACAs), and 3 (2%) “Other” participants (e.g. Veterinary Receptionist or Veterinary Practice Groomer). All respondents were over the age of 18 on the date of participation and ranged from 18 to 50+ years of age ($\bar{x} = 30.07$, $\sigma = 8.64$). Respondents were participating in full-time or part-time work, or sporadic work placement within a Veterinary practice in Ireland at the time of participation. If no longer working in this industry or a Veterinary practice, participants must have previously qualified as a Vet, VN, or an ACA, and have worked at least one month (inconsecutively or consecutively) within a Veterinary practice within the past year from the date of participation. This was to ensure that participants had received as true a representation as possible of working within a typical Veterinary practice environment. 176 (97%) females, 5 (2%) males, and 1 (1%) other gender identities participated.

A purposive sampling method was used to recruit respondents. A Letter of Access and link to the online questionnaire were sent via email to the 15 Veterinary practices who were contacted initially by telephone. One Veterinary educational institution and one animal charity were also contacted via telephone.

Via social media, the researcher contacted 46 Veterinary-related establishments, 8 Irish mental health charities or social media accounts, and 13 professional acquaintances within the Irish Veterinary industry. 2 organisations representing the Irish Veterinary industry were contacted by telephone, and the Irish Veterinary Nursing Association (IVNA) sent the questionnaire link to their members via email.

The 182 participants were recruited on a voluntary basis, and potential benefits of participation were explained in order to encourage responses (see Appendix 2 for Letter of Access).

2.2 Design

A correlational and descriptive design was applied, facilitated by a mixed-method combination of three quantitative measures, and two qualitative questions.

The measures were presented in an online anonymous questionnaire via Microsoft Forms. Respondents were grouped by the amount of years that they had spent working within a Veterinary practice environment, and this was used to assess whether-or-not stress is affected by the amount of years spent working within the industry. The qualitative data was assessed using Braun & Clarke's (2010) 6 steps of thematic analysis. The variables used for the quantitative element are displayed in Table 1.

Table 1: Quantitative Analysis Variables

Variable Type	Variables
Quantitative Criterion	<ol style="list-style-type: none"> 1. Compassion satisfaction 2. Burnout 3. Stress
Quantitative Predictor	<ol style="list-style-type: none"> 1. Amount of years spent working within Ireland's Veterinary industry 2. Self-care participation
Quantitative Dependent (ANOVA)	<ol style="list-style-type: none"> 1. Stress

Quantitative Independent (ANOVA)	1. Amount of years spent working within Ireland's Veterinary industry
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The qualitative component assessed the following:

1. Why do respondents feel satisfied/unsatisfied with their self-care routine?
2. What are the necessary components of a sustainable self-care routine?

2.3 Materials

A questionnaire comprising of 5 demographic questions, 19 questions from the Professional Quality of Life Scale (ProQOL) (Hudnall-Stamm, 2009), 6 questions from the stress component of the Depression Anxiety Stress Scale (DASS) (Lovibond & Lovibond, 1995), 3 questions from the Mindful Self-Care Scale (MSCS) (Cook-Cottone, 2017), and 2 qualitative questions was used for this study and administered via Microsoft Forms (see Appendix 3).

The Professional Quality of Life Scale (ProQOL-5)

The Professional Quality of Life Scale (ProQOL) (Hudnall-Stamm, 2009) assesses an individual's quality of life within their profession. 19 of the 30 items from the ProQOL 5 were used to assess compassion satisfaction (e.g. "I feel invigorated after working with those I help") and burnout (e.g. "I feel worn-out because of my work as a Vet/Vet Nurse/Animal Care Assistant"). The third portion of the ProQOL-5 assesses STS as part of the compassion fatigue assessment, however the researcher was not ethically permitted to assess this, therefore this component of the ProQOL-5 was omitted. Even though this portion facilitates a clearer representation of compassion fatigue, burnout is still a standalone negative experience that may indicate the presence of the potential for compassion fatigue at the very least.

Hudnall-Stamm (2009) implies that the compassion satisfaction component has an alpha scale reliability of .88, and the burnout component has an alpha scale reliability of .75. One question was omitted from the burnout component for ethical reasons; however, a reliability assessment of the altered burnout component displayed an adequate Cronbach's alpha reliability of .77.

The ProQOL-5 prompts participants to reflect on the past 30 days, however the researcher altered this to 1 year in order to accommodate sampling, particularly the sampling of Veterinary students who attend sporadic work placements but execute highly valid roles within the typical Veterinary practice environment.

Respondents were invited to consider the ProQOL-5 questions in relation to themselves and their current work situation and select the number that reflected how frequently they experienced these things over the past year. Answers were given on a scale of 1-5, as follows: 1=Never, 2=Rarely, 3=Sometimes, 4=Often, 5=Very Often.

The sum of the compassion satisfaction items, and the sum of the burnout items (separately) equate to whether-or-not compassion satisfaction or burnout is low, moderate or high, as per Table 2 below. 5 burnout items are reverse scored.

Table 2: Scoring for Compassion Satisfaction and Burnout

Low	0-22
Moderate	23-41
High	42+

(See Appendix 5 for further scoring information)

Depression Anxiety Stress Scale (DASS-21)

The DASS-21 (Lovibond & Lovibond, 1995) is a 21-item measure that assesses depression, anxiety and stress. It distinguishes well between features of depression, physical arousal, and psychological tension and agitation (Antony, Bieling, Cox, Enns & Swinson, 1998).

6 items from the stress component of the DASS-21 (Lovibond & Lovibond, 1995) were used, as the researcher was not ethically permitted to assess depression and anxiety. In addition, neither depression nor anxiety were necessary for hypotheses investigation. Stress items included “I tended to over-react to situations” and “I found it difficult to relax”, with an ethical omission of one question. The stress component had a Cronbach’s alpha reliability of .814. Other research suggests that the DASS-21 has an overall reliability of .761 to .91 (Le, Tran, Holton, Nguyen, Wolfe & Fisher, 2017; Asghari, Saed & Dibajnia, 2008). Some studies also imply that the measure is useful as a screening instrument for depression and anxiety, or within clinical outcome assessments in in-patient environments (Antony et. al, 1998; Ng, Trauer, Dodd, Callaly, Campbell & Berk, 2007; Tran, Tran & Fisher, 2013).

Respondents were required to read all 6 statements presented and indicate how much that statement applied to them over the past year. Respondents completed the 6 questions as follows: 0 = Did not apply to me at all, 1 = Applied to me to some degree, or some of the time, 2 = Applied to me to a considerable degree, or a good part of the time, 3 = Applied to me very much, or most of the time.

The sum of the 6 items was multiplied by 2 in order to achieve a score, and scores were categorised as displayed in Table 3.

Table 3: Scoring for Stress Measure

Normal	0-14
Mild	15-18
Moderate	26-33
Severe	34+

(See Appendix 5 for further scoring information)

Mindful Self-Care Scale (MSCS)

The MSCS (Cook-Cottone, 2017) was developed to align with a set of actionable practices that promote positive embodiment and well-being, thus assessing an individual's general commitment to self-care behaviours (Cook-Cottone & Guyker, 2017). The scale addresses ten domains of self-care: nutrition/hydration, exercise, soothing strategies, self-awareness/mindfulness, rest, relationships, physical and medical practices, environmental factors, self-compassion, and spiritual practices (Cook-Cottone, 2017). The 3 general items from the MSCS-Standard were used for this study, i.e. "I engaged in a variety of self-care strategies", "I planned my self-care" and "I explored new ways to bring self-care into my life". Reliability in relation to the 3 general items was checked on IBM SPSS-26, and Cronbach's alpha was determined to be .864. Other research supports this reliability assessment, suggesting that the MSCS has a Cronbach's alpha reliability of between .77 and .92 across all components (Hotchkiss, 2018; Kovaleva, Bilsborough, Griffiths, Nocera, Higgins, Epps & Hepburn, 2018).

It was requested that each of the 3 questions was considered by respondents, and that they select the number that reflected how frequently they experienced these things over the past year while working in the Veterinary industry in Ireland. Answers were given as follows:

1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Regularly

Cook-Cottone (2017) advises against totalling the scores of the 3 general questions in the MSCS-Standard, as they are intended to be displayed as 3 separate/standalone scores. However, on this occasion, these items were totalled and combined with 2 ethically approved qualitative questions in order to attempt a basic initial assessment of self-care commitment behaviours, as self-care has yet to be assessed within Ireland's Veterinary industry.

Qualitative Component

2 qualitative questions were used in order to assess the reasons why respondents may be satisfied or unsatisfied with their self-care routine, and what they believe they need in order to achieve a successful self-care routine (e.g. "Why do I feel satisfied/unsatisfied with my self-care routine?", and "What do I need in order to achieve a successful self-care routine?"). These questions were presented directly after the 3 MSCS-Standard items, and invited respondents to type as much information as they wished. This data was analysed via NVIVO.

2.4 Procedure

Participants clicked on a link within an email that was sent by either the researcher or the IVNA, or clicked on a link on Instagram, Twitter or Facebook Messenger. The questionnaire was live between December 3rd, 2019 and February 7th, 2020. A Letter of Access was included within the emails sent by the researcher and by the IVNA (see Appendix 2). Respondents were directed to the questionnaire consent page on Microsoft Forms which contained the research aims, eligible participants, and the fact that the data collected would be used for examination purposes in the future. The respondents were told that the research aimed to explore compassion fatigue, stress and self-care practices among Ireland's Veterinary professionals, therefore deception was not used, and the research aim was made clear. It was also explained that participation was voluntary, anonymous and confidential, with results stored on one password-protected laptop computer. Details for support services

(to facilitate de-briefs) were provided at the end of the survey, and this was stated on the consent page. Contact details of Samaritans and Aware were given for supportive purposes on this occasion (see Appendices 1, 2 and 4).

After consenting to participate, respondents completed some or all of the 35 questions presented (Appendix 3). After clicking on “submit” at the end of the survey, anonymous results were recorded. The average completion time was 08.07 minutes.

When all results were collected by February 7th, 2020, a Microsoft Excel file of all responses was downloaded. The quantitative data was transferred to IBM SPSS-26 for three linear regressions (Hypotheses 3, 4 & 5), one MANOVA (Hypothesis 1), and a one-way ANOVA (Hypothesis 2) analyses. The two sets of qualitative data (one for each question) were transferred to NVIVO. The researcher familiarised themselves with the data, items were coded, initial themes formed, and then final themes were formed. 5 key themes were formed for the first question, and 4 themes were formed for the second. Mind-maps were created for both qualitative questions in order to visually display key themes.

2.5 Ethics

The assessment of compassion fatigue and stress involved asking sensitive questions, which may have elicited negative emotions, such as sadness or distress. This may have negatively impacted productivity (professional or academic) or patient care. In order to facilitate the management of negative emotions, the rationale of the study was fully explained and contact details of Samaritans and Aware were provided to participants. It was also requested that participants click “yes” when prompted to do so if they gave their consent to participate, and they were given the right to withdraw at any point.

This study was approved by the Ethics Committee of the Psychology Department at Dublin Business school in order to comply with the Psychological Society of Ireland’s (PSI)

Code of Ethics, which states that Psychologists must avoid causing harm to research participants, and avoid deception. The PSI also advise that Psychologists treat all information received during research as confidential, and participants should be aware of who will receive the information that they give (PSI, 2020). No question was compulsory; however, respondents were required to consent to participation, and be over the age of 18 at the time of participation in order to comply with PSI ethical guidelines.

On questionnaire set-up, a blank, green background was used to display the questions so as not to “prime” participants and ensure genuine/uninfluenced answers. For inclusivity purposes, the term “Other” was included in the gender question, along with a text box, so that participants who did not identify as either male or female could include their gender identity should they wish to do so.

The questionnaire was anonymous. In order to avoid the identification of participants, as well as participants that the researcher may have been previously acquainted with, emailed questionnaires were sent out across three different dates, with the researcher checking incoming results 24 hours or more after they had been sent out. The researcher then continued to check the survey for troubleshooting issues or errors every 48 hours following final survey link distributions. Age was also included as a range question instead of a single digit, in order to assist with anonymity. Results were stored on a password protected computer and were viewed only by the researcher and their supervisor.

The researcher was aware that some gender identities could be less commonly disclosed within the sample, leaving participants potentially open to identification on publication. However, any person who answered “Other” appears in the results section as “Other”, and the gender identity that they have disclosed to the researcher will remain undisclosed within this paper in order to protect their anonymity. The initial measures that the

researcher took to protect anonymity also meant that the researcher could not identify any participant who did answer “Other” within the gender question.

Some questions and components of the three measures used were omitted from this study, as the researcher was not ethically approved to assess respondents on a clinical level. Therefore, the depression and anxiety components, plus one stress question of the DASS (Lovibond & Lovibond, 1995) were removed. The STS component and one question from the burnout component of the ProQOL (Hudnall-Stamm, 2009) were also removed. Furthermore, only the three “general” questions from the MSCS (Cook-Cottone, 2017) were used in combination with 2 ethically approved qualitative questions.

2.6 Data Analysis

The two qualitative questions within this study were assessed using the Braun & Clarke (2010) method of Thematic Analysis, which is said to be an essential foundational method for qualitative analysis. While it is structured into stages, it is a flexible method that facilitates in-depth qualitative data exploration (Braun & Clarke, 2010). An inductive method was used in order to assess the data for themes, with a semantic analytical approach facilitating detailed interpretation. An essentialist approach to analysis was also taken. The researcher familiarised themselves with the data, coded the data and formed initial themes. These themes were then reduced and renamed, with 5 final themes formed for the first question, and 4 themes for the second. Mind maps were also used to summarise the results of both questions.

Results

The following is a representation of quantitative results retrieved from IBM SPSS-26, and qualitative results as analysed via NVIVO-12.

3.1 Descriptive Statistics

Of all respondents ($n = 182$), 18 (10%) were qualified Vets, 103 (57%) were VNs, and 6 (3%) were ACAs. 52 (29%) were Veterinary students (Vets/VNs/ACAs), and 3 (2%) were “Other” participants (e.g. Veterinary Receptionist or Veterinary Practice Groomer). VNs showed a significantly higher level of interest in participation. Respondents ranged from 18 to 50+ years of age ($\bar{x} = 30.07$, $\sigma = 8.64$).

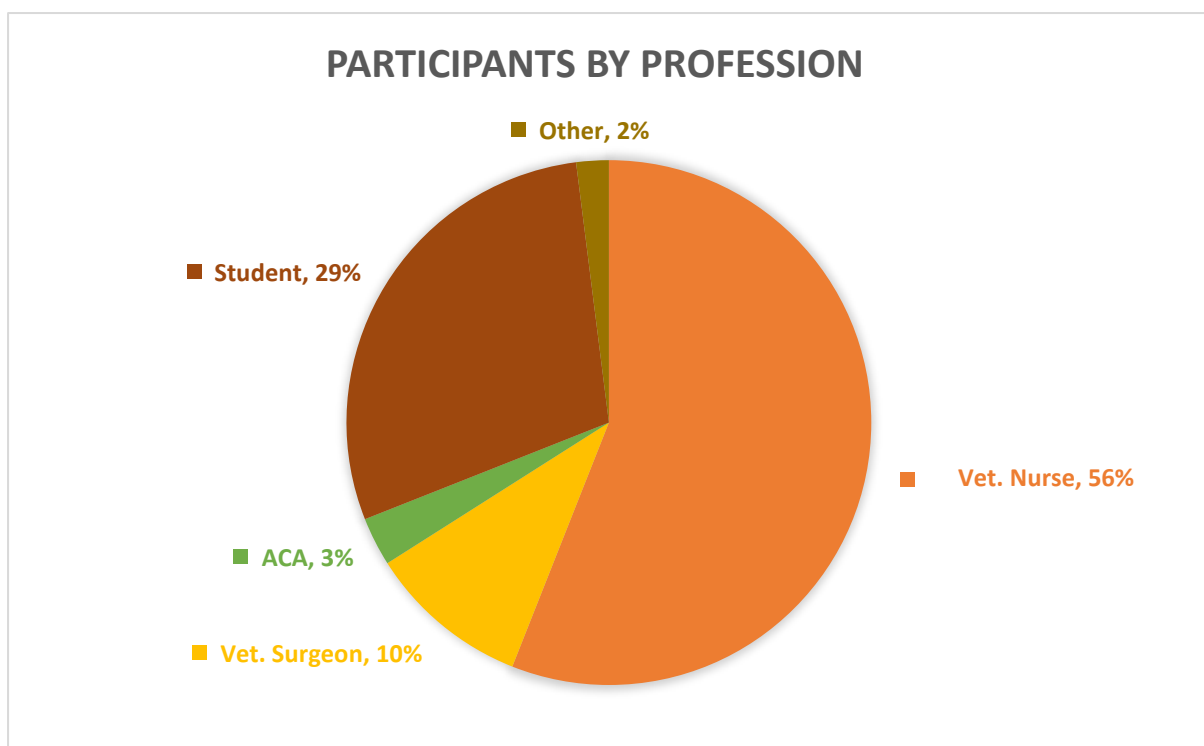


Figure 1: Participants as categorised by profession

Figure 2 shows that 26 respondents worked within Ireland’s Veterinary industry for 1-11 months, 87 for 1-5 years, 28 for 6-10 years, 20 for 11-15 years and 20 respondents had

worked in the industry for 16+ years. Therefore, the majority of professionals who were interested in the study had worked within the Veterinary industry in Ireland for 1-5 years.

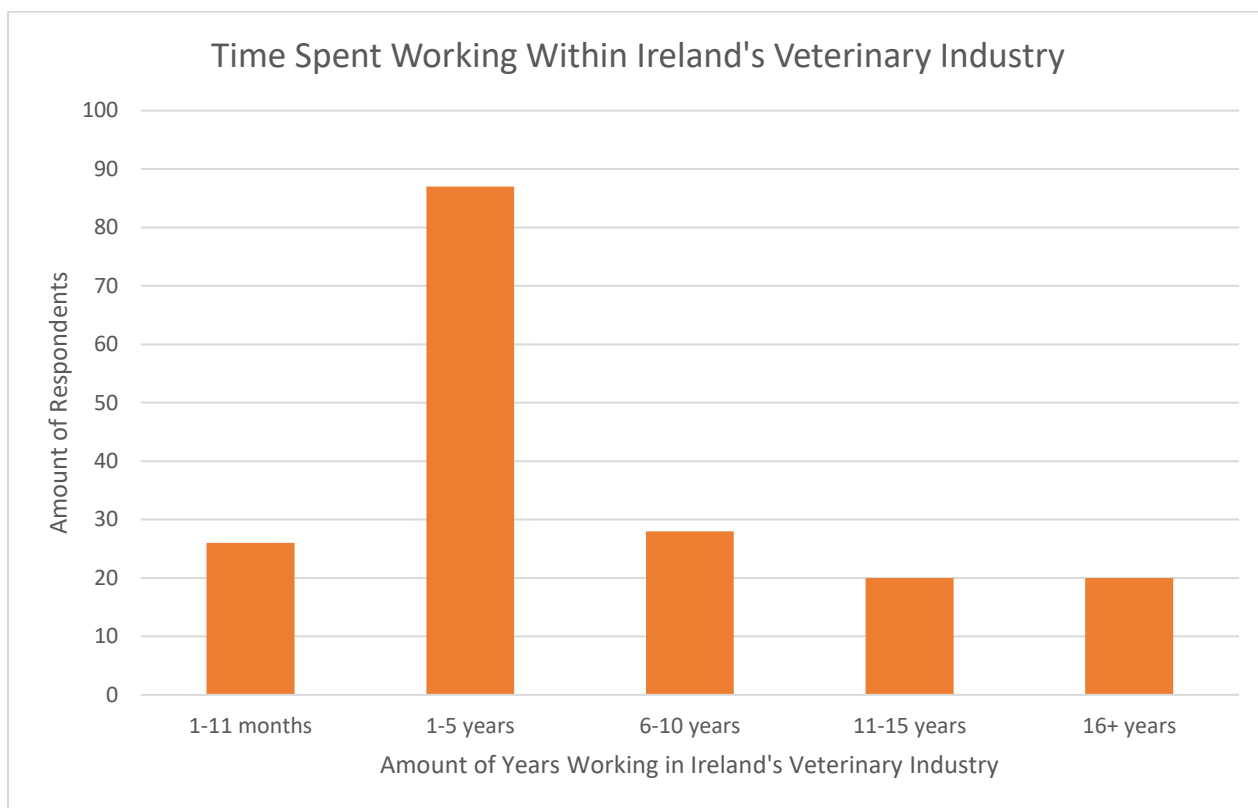


Figure 2: Time spent working within the Irish Veterinary industry

In relation to workplace location, most respondents worked in Leinster- 101 (56%), as displayed in Figure 3. 49 (27%) worked in Munster, 22 (12%) worked in Connaught, and 9 (5%) worked in Ulster.

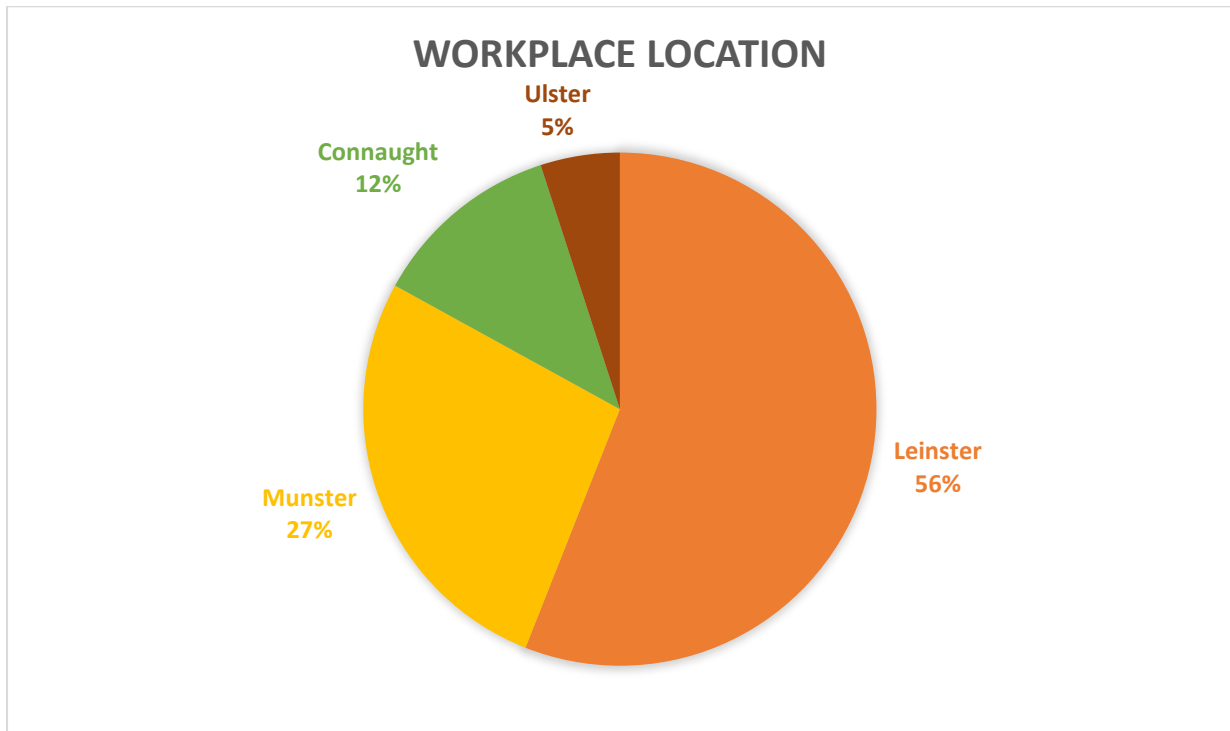


Figure 3: Respondents as categorised by workplace location

Of 182 respondents ($n = 182$), 176 (97%) were female, 5 (2%) male, and 1 (1%) other gender identities.

Table 4: Reliability Testing

Measure	Cronbach's alpha	Cronbach's alpha based on standardised items	N of items
<i>DASS</i>	.814	.813	6
<i>ProQOL</i>			
Compassion	.882	.882	10
Satisfaction			
Burnout	.770	.760	9
<i>MSCS</i>	.864	.865	3

Cronbach's alpha was determined for each of the three quantitative measures using IBM SPSS-26, and reliability results are presented in Table 4 above. All measures were deemed to be reliable.

Table 5: Descriptive Statistics for Psychological Measures- DASS, ProQol & MSCS

Measure:	Stress <i>(DASS)</i>	Compassion Satisfaction <i>(ProQOL)</i>	Burnout <i>(ProQOL)</i>	Self-Care <i>(MSCS)</i>
N	174	173	174	181
Minimum	.00	20.00	9.00	3.00
Maximum	36.00	50.00	38.00	15.00
Mean	16.17	37.25	24.53	6.65
Std. Deviation	7.68	6.59	5.62	2.80
Variance	59.03	43.43	31.54	7.82

The descriptive statistics for each measure are presented in Table 5. The mean scores indicate that on average, participants experienced mild stress (16.17), a moderate level of compassion satisfaction (37.25), but also a moderate level of burnout (24.53). The self-care mean of 6.65 indicates a relatively low level of self-care participation in this sample. Despite the 3 general questions of the MSCS-Standard being standalone questions, scores were averaged on this occasion and the highest score possible in the quantitative self-care assessment within this study was 15. So, in relation to the highest possible score in this study, 6.65 is considerably low.

3.2 Inferential Statistics

Hypothesis 1

H₁ There will be a significant difference between stress and the amount of years working in the Veterinary industry.

A one-way analysis of variance completed with the stress scores showed that the amount of stress experienced by Veterinary professionals differed significantly in accordance with the number of years spent working within the Veterinary industry in Ireland ($F(4, 168) = 2.53, p = .043$). The Tukey post hoc analyses also showed that the group of professionals who were working within the industry for 11-15 years experienced a significantly higher amount of stress in comparison to the group of professionals who were working within the industry for 1-11 months ($-3.19, p = .053, CI [95\%] -6.41, .02$). Therefore, the null was rejected in this case. These results, shown via Figure 4, suggest that the level of stress experienced by professionals working in the Veterinary industry in Ireland increases over time, peaks at 11-15 years of work, and then begins to decrease.



Figure 4: Amount of years spent working within Ireland's Veterinary industry vs. amount of stress experienced.

Hypothesis 2

H₂ There will be a significant relationship between self-care participation and compassion satisfaction.

A simple linear regression showed a weak positive relationship between self-care participation and compassion satisfaction ($F(1, 170) = 5.86, p = .17, R^2 = .03$) (Self-Care, $\beta = .18, p = .017, CI [95\%] .08, .79$). Therefore, the null was rejected.

Hypothesis 3

H₃ There will be a significant relationship between self-care participation and burnout among Veterinary Professionals.

Using a linear regression in order to assess whether or not regular self-care participation and planning influenced the level of burnout experienced by respondents, it was found that partaking in self-care strategies did not significantly predict burnout ($F(1, 171) = 1.274$, $p = .261$, $R^2 = .002$) (Self-care, $\beta = -.086$, $p = .261$, CI [95%] $-.472, .129$). Therefore, the null was not rejected.

Hypothesis 4

H₄ There will be a significant relationship between self-care participation and stress among Veterinary Professionals.

A linear regression found that self-care participation did not significantly predict stress ($F(1, 171) = .12$, $p = .727$, $R^2 = .01$) (Self-care, $\beta = .03$, $p = .727$, CI [95%] $-.24, .17$). The null could not be rejected.

Hypothesis 5

H₅ There will be a significant difference in CF (compassion satisfaction and burnout) between respondents who worked less or the least amount of time within the Irish Veterinary industry versus those who had worked more or the most time within the industry.

Using a MANOVA it was found that there was no significant difference in compassion satisfaction and burnout between respondents who had worked less time within the Irish Veterinary industry versus those who had worked more or the most time within the Irish Veterinary industry ($F(8, 320) = .58$, $p = .792$, effect size = $.01$). Despite a Bonferroni adjustment to $.025$, there was still no significant differences between any of the 5 groups

(years spent working within the Veterinary Industry in Ireland) on both compassion satisfaction ($f(4, 161) = .63, p = .642$) and burnout ($f(4, 161) = .58, p = .677$). Therefore, the null could not be rejected.

Other Quantitative Results of Interest: Self-Care

Results of the quantitative assessment of self-care showed that 40% of participants rarely engaged in a variety of self-care activities, while only 4% stated that they regularly do so. 37.6% stated that they never planned their self-care activities. 34.1% of respondents stated that they rarely explored new ways to bring self-care into their lives, with 31.9% stating that they never explored new ways of bringing self-care into their lives at all. Responses relating to self-care participation are displayed in Figures 5, 6 and 7 below. The MSCS was combined with two qualitative questions, discussed later.

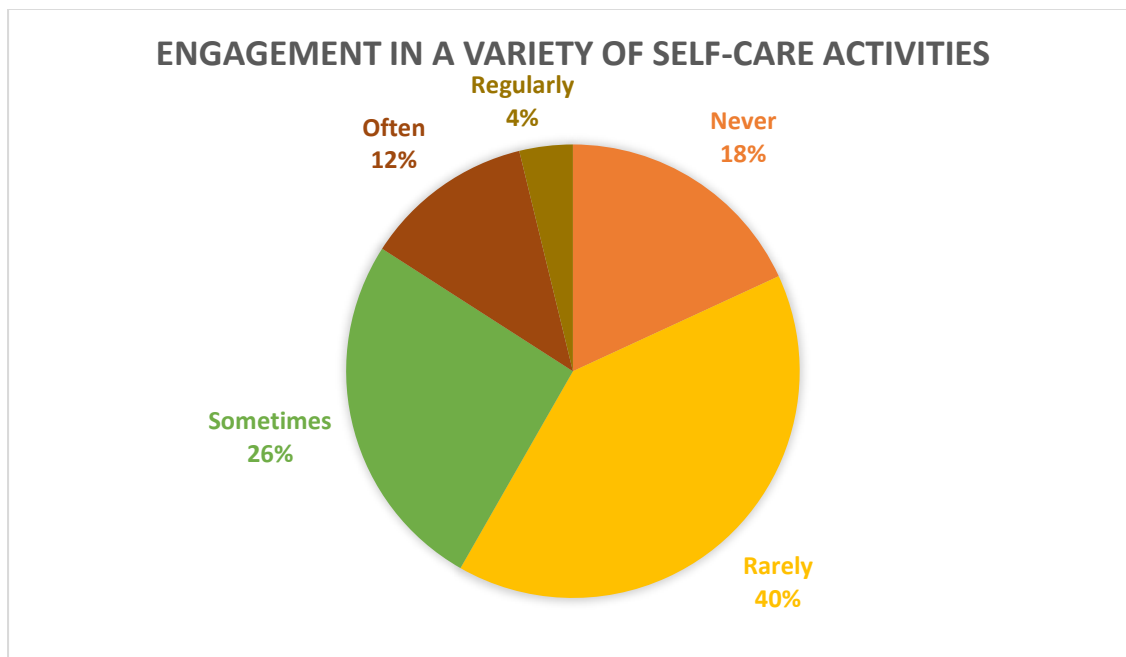


Figure 5: Participant engagement in a variety of self-care activities



Figure 6: Participant planning of self-care

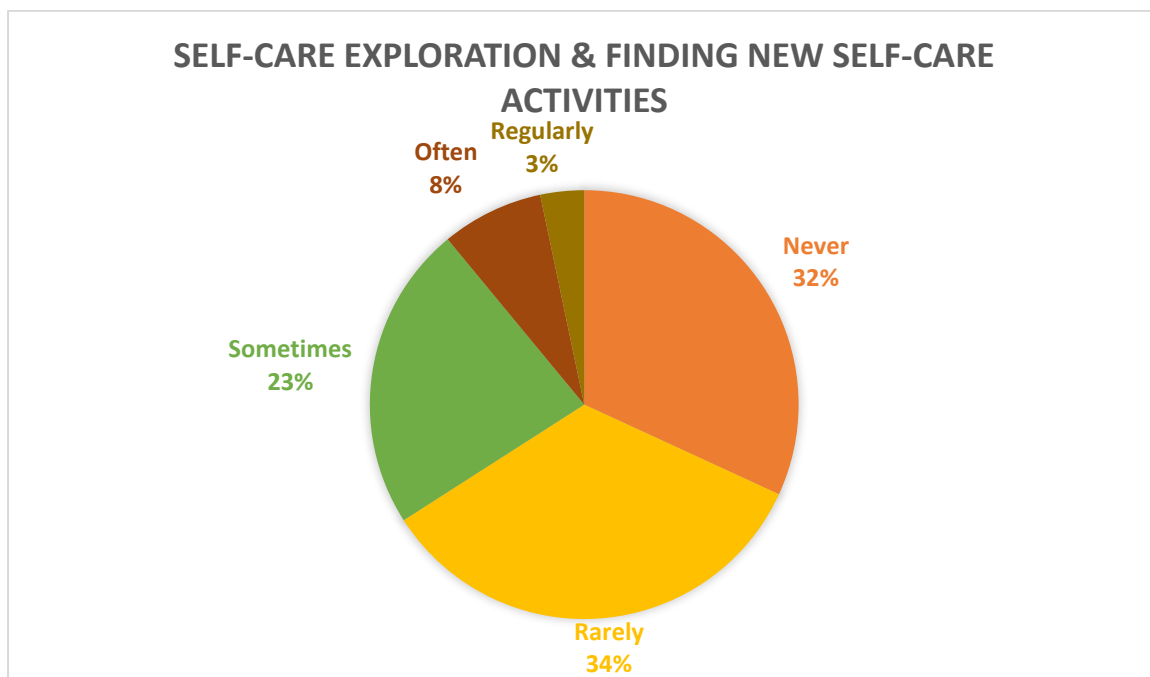


Figure 7: Participant self-care exploration

3.3 Qualitative Analysis

The quantitative results showed that overall, the majority of this sample rarely or never participated in a variety of self-care activities, planned self-care or explored new self-care activities over the past year. Two further qualitative questions were asked in order to assess the reasons for satisfaction/dissatisfaction with a self-care routine, and what is needed in order to form a sustainable self-care routine, as follows:

Q.1. Why do I feel satisfied/unsatisfied with my self-care routine?

Q.2. What do I need in order to achieve a sustainable self-care routine?

Responses were transferred to NVIVO 12 for thematic analysis, as per Braun & Clarke's (2010) six steps. The final themes were mapped as follows (see Tables 6 and 7):

Table 6: Themes for “Why do I feel satisfied/unsatisfied with my self-care routine?”

Theme	Theme Title	Quotations
Theme 1	<i>Time Management and Understanding How to Engage</i>	<p>“I don't have time”</p> <p>“I always feel as though I've no time to do anything relaxing”</p> <p>“Don't prioritize it enough”</p> <p>“I don't know what self-care I could do”</p> <p>“Still have not found the right method yet”</p>

Theme 2	<i>The Effects of Work</i>	<p>“Hours are long and inconsistent”</p> <p>“Most work-days can be anywhere from 10- hour to 18-hour days”</p> <p>“Practice became busier, but no extra staff had been hired to help”</p> <p>“Struggle to balance work with self-care strategies”</p> <p>“Work extremely hard”</p> <p>“Working in this industry leaves me too exhausted”</p>
Theme 3	<i>Wellbeing</i>	<p>“Mental health issues”</p> <p>“Sometimes it falls behind because I am tired/stressed”</p> <p>“I’m exhausted”</p> <p>“Hard to get motivated”</p> <p>“Lack of sleep”</p> <p>“My self-care routine fluctuates with my mood and situation”</p>
Theme 4	<i>Financial Constraints</i>	<p>“Can't afford pampering sessions like massages etc.”</p> <p>“Not enough money (low wages) to be able to afford self-care that I'd like to try”</p> <p>“I work extremely hard and do not get the benefits financially”</p> <p>“Wages too low to pay for things like yoga etc”</p> <p>“Low pay”</p>
Theme 5	<i>Recognition and Support</i>	<p>“No thanks from boss”</p> <p>“Expected to do it all and not complain”</p>

		<p>“It can be tough working with stressed staff members, especially with vets that are overworked”</p>
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Theme 1: Time Management and Understanding How to Engage

An obvious contributor to self-care satisfaction for this sample was time management, as well as understanding how to engage in self-care activities. Some respondents did not feel that they had the time to commit to self-care, while others were unsure about the types of self-care activities that they could take part in. Some respondents also commented on the fact that they did not prioritise themselves or their self-care routine.

Theme 2: The Effects of Work

Working hours (including long or irregular working hours) was a prominent contributor to levels of self-care routine satisfaction. Working within the industry on a general level was also problematic for some respondents, as they implied that the industry itself does not lend itself to successful self-care routines. “Struggle to balance work with self-care strategies” suggested that a number of respondents struggled with negotiating between work and personal time.

Theme 3: Wellbeing

Mental and physical wellbeing were two main issues raised around satisfaction/dissatisfaction with self-care routines. Depression, anxiety, other mental health issues, and fatigue were all directly linked to the level of satisfaction felt in relation to self-care routine. Stress and lack of motivation were also key factors for some respondents. It was also noted that music, walking and exercise, and psychological therapy were of benefit to some respondents.

Theme 4: Financial Constraints

Respondents felt as though they lacked general resources in order to assist them with their self-care activities. A problematic low income was particularly notable in relation to dissatisfaction with self-care routine, as this resulted in limited ability to participate in popular self-care activities such as yoga classes, guided meditation classes, or personal training/gym membership commitments.

Theme 5: Recognition and Support

Some respondents commented on the lack of support that they received from family members and employers, indicating that the lack of support encouraged dissatisfaction with self-care routine. Respondents were regularly “expected to do it all” while “It can be tough working with stressed members, especially with vets that are overworked”. High workload levels in combination with lack of support or adequate teamwork appeared to majorly impact on respondents’ participation in self-care activities, and their overall satisfaction with same as a result.

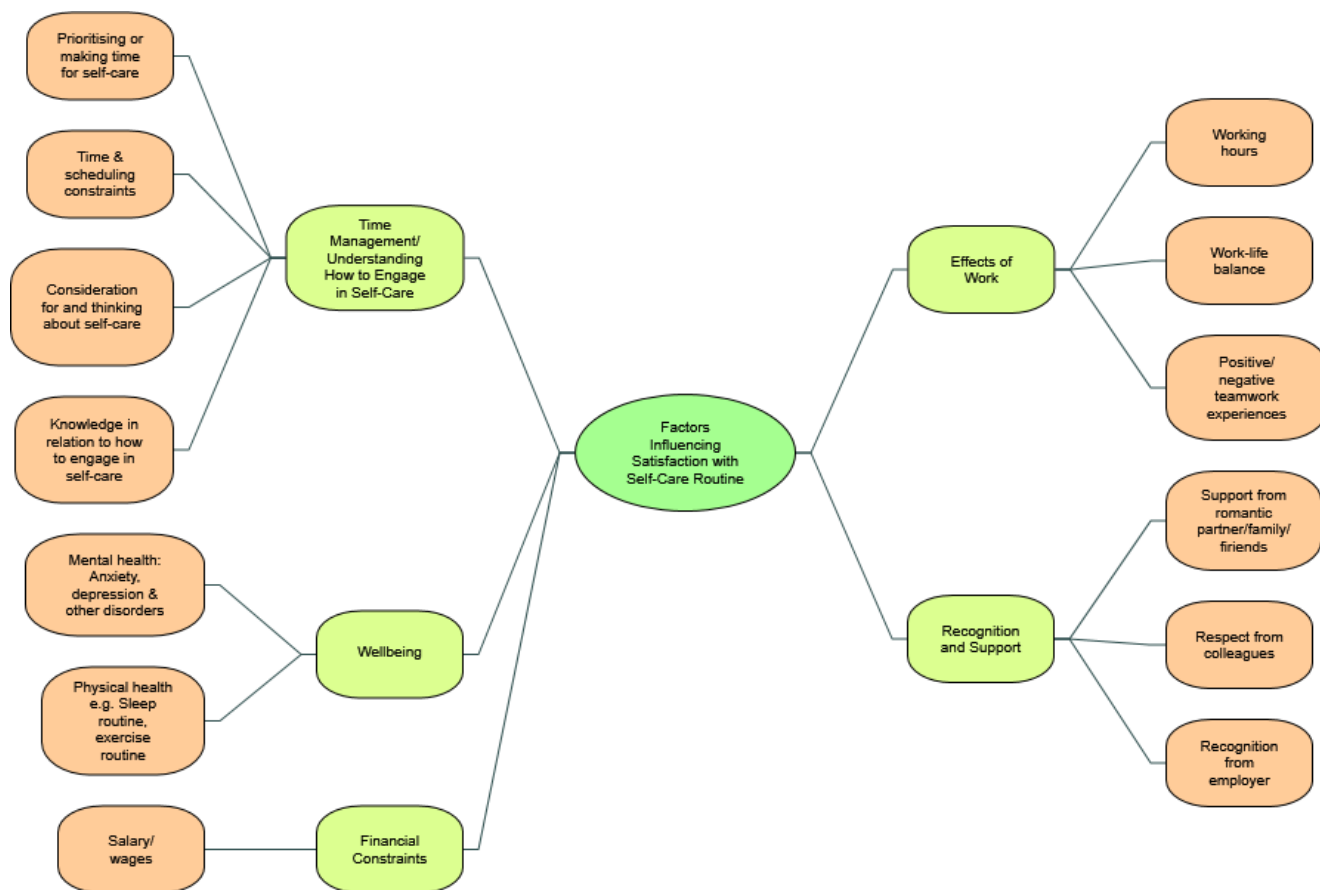


Figure 8: Summary of results for “Why do I feel satisfied/unsatisfied with my self-care routine?”

Table 7: “What do I need in order to achieve a sustainable self-care routine?”

Theme	Theme Title	Quotations
Theme 1	<i>Organisation and Time Management</i>	“More time” “Better work/free time ratio” “Get out of work on time” “Find out more about self-care” “A plan” “Organisation”
Theme 2	<i>Better Work Environment and Working Hours</i>	“More positive work environment” “Correct amount of staff for workload” “More recognition from employers”

		<p>“Less work stress”</p> <p>“Lunches and breaks consideration”</p> <p>“Regular working hours”</p> <p>“More respect for my profession both from colleagues and clients”</p>
Theme 3	<i>Awareness of Emotions and Needs</i>	<p>“I need to be able to let myself cry and feel overwhelmed when I am, and be able to admit it”</p> <p>“I need to learn the early signs of overwhelm and burn out and act accordingly”</p> <p>“Actively work to know what you are feeling and why”</p>
Theme 4	<i>Better Financial Circumstances</i>	<p>“Better wages”</p> <p>“A job that pays appropriately”</p> <p>“Decent wages”</p> <p>“Better paying job”</p>

Theme 1: Organisation and Time Management

Respondents felt that they needed more time, planning and organisation in order to achieve a sustainable self-care routine. Discipline seemed to be a major necessity. Finding out more about self-care and trying different activities also contributed to the formation of a solid routine or plan for some respondents. Getting out of work on time contributed to the perceived ability to partake in a self-care routine. Almost 20% of respondents mentioned that having more time was a necessity.

Theme 2: Better Work Environment and Working Hours

Some respondents felt that the negativity of their work environment impacted on their self-care participation. Having the correct amount of staff in order to manage the workload impacted on perceived ability to participate in self-care, as should staffing be an issue, irregular breaks/lunches and overtime may impede on perceived self-care participation ability for some respondents. The management of general work stress, negative teamwork experiences, and regular recognition from employers were essential features within a sustainable self-care routine. More respect from employers, colleagues and clients also seemed to encourage self-care participation ability.

Theme 3: Awareness of Emotions and Needs

Some respondents felt that they needed to cease self-neglect, alter their self-belief system (e.g. “An attitude which allows you to believe you deserve it”), and cease consuming alcohol. Alternatively, some respondents indicated that they needed to drink alcohol. Allowing feelings to be truly felt, becoming more aware of individual signs of burnout and overwhelm, and “leaving work at work” were also needed by some. Prioritising oneself, being patient with oneself and practicing saying “no” to day-to-day requests were also highlighted. It was indicated that actively and consciously working towards knowing and understanding feelings was an essential practice.

Theme 4: Better Financial Circumstances

Many respondents highlighted that they needed a better salary or more money in order to compose a self-care routine that remains sustainable and achievable while bills and other non-negotiable payments are dealt with. Most respondents who highlighted the need for more money indicated that their Veterinary work salary was the most problematic source of financial worry, and that this would need to be improved in order to be able to attend yoga

classes, gym classes or meditation sessions. This also extended to spa treatments and/or relaxation activities.



Figure 9: Summary of results for “What do I need in order to achieve a sustainable self-care routine?”

The results of this study raise many queries surrounding the current mental health status of professionals working within Ireland’s Veterinary industry, as well as queries surrounding professionals’ participation, or lack of, in self-care activities. Other issues such as salary, recognition for completed work, support, the culture of the Veterinary industry itself and the management of time and priorities have also been raised by respondents, possibly indicating that these issues are either linked to or directly affecting mental wellbeing status and self-care participation for Veterinary professionals.

Discussion

4.1 Review of Findings and Previous Literature

This study aims to highlight the current mental wellbeing trends (regarding compassion satisfaction, burnout, stress and self-care) among Ireland's Veterinary professionals, and raise awareness in relation to the importance of mental wellbeing within the Irish Veterinary industry, ultimately promoting more positive and consistent patient care by encouraging professionals to prioritise their mental health.

The assessment of Hypothesis 1 found that the amount of stress experienced by professionals increased over the course of their time in the industry, peaking at 11-15 years and decreasing at 16+ years. Logically, should a professional be working within the same industry for 11-15 years, they should experience at least some amount of growth and development as they become more competent in their line of work. Therefore, it is concerning that despite experience gained, stress still increases.

Respondents working in the industry for 11-15 years experienced significantly more stress than those who were new to the industry (1-11 months). The reason why stress increases as more time is spent working within the industry is highly questionable and needs further investigation, as the respondents who were new to the industry were Veterinary students. Students may experience the same stressors as qualified professionals during a typical workday, plus stressors linked to academia, and also may still be developing the skills required to address negative emotional experiences and CF or stress symptoms (McArthur, Andrews, Brand & Hazel, 2017). Veterinary students should technically experience or be more vulnerable to stress in comparison to their well-established colleagues; however, results of this study imply otherwise. Further investigation is needed to determine the reasons for this.

Foster and Maples (2014) pointed out that frequent contact with dead and dying patients is one of the leading causes of stress within the Veterinary industry. This study did not explore this, nor did it explore the effects of euthanasia, which is both unique to this profession and can cause high levels of negative emotions among staff members (Reeve et. al, 2005; Anderson et. al, 2007). Further research surrounding stress, stress in relation to each individual profession and more specifically, euthanasia, may provide further insight into the causes of stress for Ireland's Veterinary professionals, as well as potential prevention and intervention methods.

Assessment of Hypothesis 2 found that self-care did predict compassion satisfaction. This suggests that, should an individual participate in self-care activities regularly, their level of compassion satisfaction will be positively affected, contributing to a more fulfilling working experience. However, the insignificant results for the other two linear regressions showed that self-care did not predict either burnout or stress. Sansó et. al (2015) produced similar results, showing that self-care and awareness positively predicted compassion satisfaction and negatively predicted compassion fatigue and burnout.

Within the present study, mean scores of 24.53 and 16.17 on the burnout and stress measures respectively indicate that, on average, a moderate level of burnout and mild level of stress was experienced by this sample over the past year. Perhaps self-care does not influence burnout or stress for this sample as the levels of burnout and stress experienced are too high for participants to be positively affected by self-care efforts. This is a serious cause for concern, especially because the burnout average is quite high.

Previous literature implies that stress causes compassion fatigue, and also that self-care activities need to be combined with other actions or factors in order to successfully manage stress and as a result, compassion fatigue. The mean scores of stress and burnout,

coupled with the indication that stress levels increase as time spent within the industry increases, imply that this particular sample are potentially vulnerable to compassion fatigue over the course of their careers. Despite this however, the quantitative component of the self-care assessment produced extremely concerning results. Just 4% of 182 respondents regularly participated in self-care activities over the past year. Only 3% regularly planned self-care, and 3% regularly explored new ways of bringing self-care into their lives. Furthering on from this, when addressing self-care satisfaction, respondents expressed a lack of knowledge surrounding how to engage in self-care, which activities are beneficial, time management, and some felt that they did not have enough time to complete self-care activities. These results indicate that more guidance and support is needed from Irish Veterinary organisations and workplaces in order to ensure that Veterinary professionals are competent in managing their mental wellbeing. It may be beneficial for Veterinary practices to consistently show their employees how to care for their mental health (via practice guidelines or workshops for example), and continuously evaluate employees' satisfaction with self-care routines.

The effects of work on self-care participation were very prominent. Staffing issues, long working hours, negative work environments and lack of recognition for hard work were just some of the issues raised that negatively affected self-care satisfaction and participation ability. Perhaps it would be helpful for employers to support self-care activities by arranging group activities such as in-house lunchtime yoga sessions, mindfulness sessions and mental health related workshops (e.g. stress management workshops). Further research is needed in relation to the potential success of arrangements such as these, however these activities, along with regular advice and guidance from employers, could contribute to positive team bonding experiences, ultimately encouraging more positive teamwork, productivity within the practice, and an improved perceived level of support. This may also partially solve the worry

that professionals don't have enough time or money to participate in self-care, as self-care can be completed at work on some days.

In relation to students, perhaps self-care and mental health guidance workshops, or even dedicated modules with assessments, should be completed as a compulsory element of any Veterinary degree course to ensure that graduates who are entering the Veterinary community are highly skilled in self-care, self-preservation and mental wellbeing maintenance.

4.2 Limitations, Strengths and the Direction of Future Research

This study is not without limitations. Firstly, the various divisions within the sample were somewhat problematic. The gender split was uneven, with 97% females, 2% males and 1% other gender identities. There was also an uneven profession split within this study, as VNs made up 56% of the sample. A very small number of respondents were working in other areas of the Veterinary industry; however, this portion of the sample was not large enough for a mental wellbeing comparison assessment between these respondents and the rest of the respondents. Most respondents were also in Leinster, with the least number of respondents in Ulster (just 5%). Finally, the inclusion of Veterinary students as a single category meant that insight into the mental wellbeing of each student group (Vets/VNs/ACAs) was not obtained. Overall, the sample size itself was also very small ($n = 182$). The various uneven divisions within the sample and the small sample size could have encouraged some misrepresentations. For example, perhaps males would answer questions differently to females, however this cannot be noted or investigated on this occasion, as 97% of the sample were female. In order to promote accurate findings within future research, a larger sample size and more even group sizes in relation to gender, profession type, and workplace location could be beneficial, as this may allow for gender differences and profession differences to be noted. The

“student” category could also be divided further, and more respondents who are no longer working in Vet, VN and ACA roles could be specifically recruited for comparison reasons. While gender differences and profession differences were not of particular interest on this occasion, it may have been beneficial to receive this information so that more accurate recommendations could be discussed.

It may be beneficial to include the depression and anxiety components of the DASS (Lovibond & Lovibond 1995), and the STS component of the ProQOL (Hudnall-Stamm, 2009) in future research, as some respondents did mention depression, anxiety and other psychological disorders within the qualitative element of this study, and international research implies that mental distress is common among Veterinary professionals and students. Even though the measures used on this occasion were reliable, perhaps more detailed and specific prevention and intervention methods could be composed should these components be used in the future. In addition, despite international research implying that substance misuse is common within caring professions (Emmett et. al, 2019), and despite some indication, via the qualitative component of this study, that this might be the case among Ireland’s Veterinary professionals, whether or not this is in fact an issue in Ireland’s Veterinary community remains unclear. This may be another reason as to why the full DASS and ProQOL (Lovibond & Lovibond, 1995; Hudnall-Stamm, 2009) measures should be used for more specific assessment of depression, anxiety, stress and compassion fatigue levels among professionals, as Emmett et. al (2019) discuss the link between negative emotional experiences and negative coping mechanisms such as substance misuse and escapism.

This study provides insight into current trends among Ireland’s Veterinary professionals in relation to compassion fatigue and stress, but particularly regarding self-care. The quantitative measure used to assess self-care, combined with the two qualitative questions which allowed respondents to elaborate further, displayed a well-rounded account

of the self-care activities of this sample (n = 182). Using a mixed methods approach for self-care assessment proved to be highly beneficial, as not only did respondents display their self-care participation habits, but the results also uncovered some important factors that affect self-care participation. Further research is welcome, however, as research surrounding self-care within Ireland's Veterinary community is severely lacking, despite international research commonly discussing the benefits of self-care. Perhaps longitudinal studies with Veterinary staff members would be beneficial, as mental wellbeing progress can be assessed if a self-care routine is implemented and supervised over a period of time by psychological researchers. Other effects of self-care routines, such as improved relationships with colleagues, or improved patient care, could also potentially be observed with this type of design. Further research is also needed surrounding prevention and intervention methods on a general level.

4.3 Conclusion

The results of this study highlight several talking points for Ireland's Veterinary community. Compassion fatigue assessment, stress and stress management, and the implementation of healthy self-care routines are just some of the several areas that need to be explored within this industry.

Despite some efforts by organisations to care for the mental wellbeing of Veterinary staff in Ireland, mental wellbeing guidance is still scarce overall within Ireland's Veterinary community, and most organisations direct professionals to external services such as Samaritans, or the services that operate within international Veterinary communities, such as Vetlife. While these services are highly valuable and should remain part of conversations surrounding mental wellbeing, Ireland's Veterinary professionals are in need of more assistance with managing their mental wellbeing. Results indicate the potential need for more

employer involvement in the organisation of self-care participation and mental wellbeing intervention strategies. The increase in stress experienced by professionals as they spend more time working within the industry is a huge concern.

This is just the beginning of the conversation surrounding mental wellbeing, and more specifically compassion fatigue, stress and self-care, for the Irish Veterinary industry. Further research is needed, as outlined. More supportive networks are needed, and potentially, a workplace culture change is needed overall in order to accommodate conversations surrounding mental wellbeing and the skills involved in preserving this so that ultimately, the high standard of care that patients deserve is executed and preserved at all times.

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Appendices

Appendix 1- Instructions and Guidelines for Respondents

My name is Aoife Smith and I am conducting research in the Department of Psychology at Dublin Business School that explores compassion fatigue, stress and self-care practices among Veterinary professionals in Ireland. This research is being conducted as part of my Higher Diploma in Psychology and will be submitted for examination. Eligible participants include: Veterinary Surgeons, Veterinary Nurses, Animal Care Assistants, students of these disciplines, or professionals who are qualified in these disciplines but no longer work within a Veterinary practice environment. You are invited to take part in this study and participation involves completing this anonymous online survey on Microsoft Forms. While the survey asks some questions that might cause some minor negative feelings, it has been used widely in research. If any of the questions do raise difficult feelings for you, contact information for support services are included on the final page. Participation is completely voluntary and so you are not obliged to take part. Participation is anonymous and confidential. Thus, responses cannot be attributed to any one participant. For this reason, it will not be possible to withdraw from participation after the questionnaire has been collected. The questionnaires will be securely stored and data from the questionnaires will be transferred to and stored on a password protected computer. It is important that you understand that by completing and submitting the questionnaire that you are consenting to participate in the study. Should you require any further information about the research, please contact Aoife Smith, [REDACTED]@mydbs.ie. My supervisor, Cathal O'Keeffe, can be contacted at [REDACTED]@dbs.ie.

Thank you for taking the time to complete this survey.

Appendix 2- Letter of Access (for email communication with interested Veterinary practitioners)

Dear Sir/Madam,

My name is Aoife Smith and I am a final year student of the H.Dip Psychology programme at Dublin Business School. I am required to complete a Psychology research project and present a thesis for examination. Therefore, I have chosen to research Mental Health among Veterinary professionals and students in the Republic of Ireland via a 3-5 minute anonymous online survey focussing on compassion fatigue, stress and self-care.

As a successful 2014 graduate of the BSc. Veterinary Nursing programme at University College Dublin, I have previously worked within the Veterinary industry and have a firm understanding of this industry and its very valuable place in Irish society.

Unfortunately, compassion fatigue, burnout, and other job stresses are widespread problems for the Veterinary community across the USA and the UK. At present, little or no research exists in the area of Mental Health within the Irish Veterinary industry. I am conducting this research in order to:

1. Begin to highlight the current mental wellbeing trends (regarding compassion fatigue, stress and self-care) among Ireland's Veterinary professionals.
2. Raise awareness in relation to the importance of mental wellbeing within the Irish Veterinary industry and make suggestions surrounding the maintenance of mental wellbeing within this industry.

3. Promote more positive and consistent patient care by encouraging professionals to adequately care for themselves so that they have the capability of caring for their patients to the highest standard possible.

Taking part in this research as a Veterinary Surgeon, Veterinary Nurse, Animal Care Assistant, or a student of any of these disciplines, would contribute to research that will hopefully begin a positive discussion among Ireland's Veterinary professionals regarding the importance of their mental wellbeing, and the actions that can be taken in order to preserve this.

Please find the link to the anonymous survey below, and please feel free to share this with any Veterinary professional or student who may be interested. Any queries may be directed to me at [REDACTED]@mydbs.ie, or to my supervisor Cathal O'Keeffe, at [REDACTED]@dbs.ie.

I wish to sincerely thank you for your contribution, and I wish you a very Happy Christmas.

Yours faithfully,

Aoife Smith.

1. I am a:

Veterinary Surgeon

Veterinary Nurse

Animal Care Assistant (ACA)

Student (Veterinary Medicine, Veterinary Nursing, Animal Care Assistant)

Other (please specify)

2. I am:

Male

Female

Other (text box provided)

3. My workplace/work placement is located in:

Ulster

Leinster

Connaught

Munster

4. Please specify your age range:

18-24

25-29

30-40

40-50

50+

5. Please indicate the amount of years that you have spent working in Veterinary practice(s) in the Republic of Ireland:

1-11 months

1-5 years

6-10 years

11-15 years

16-20 years

20-30 years

30+ years

Please read each statement and circle a number 0, 1, 2, or 3 which indicates how much the statement applied to you *over the past year*. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 = Did not apply to me at all

1 = Applied to me to some degree

2 = Applied to me to a considerable degree, or a good part of the time

3 = Applied to me very much, or most of the time

6. I tended to over-react to situations

7. I felt I was using a lot of nervous energy
8. I found myself getting agitated
9. I found it difficult to relax
10. I was intolerant of anything that kept me from getting on with whatever I was doing
11. I felt that I was rather touchy

Consider each of the following questions about you and your current work situation. Select the number that honestly reflects how frequently you experienced these things over the past year.

1=Never 2=Rarely 3=Sometimes 4=Often 5=Very Often

12. I am happy
13. I get satisfaction from being able to help animals
14. I feel connected to others
15. I feel invigorated after working with those I help
16. I am not as productive at work because I am losing sleep over traumatic experiences of an animal I help/have helped
17. I feel trapped by my job as a helper
18. I like my work as a Vet/Vet Nurse/Animal Care Assistant
19. I am pleased with how I am able to keep up with helping techniques and protocols
20. I am the person I always wanted to be

21. My work makes me feel satisfied
22. I feel worn out because of my work as a Vet/Vet Nurse/Animal Care Assistant
23. I have happy thoughts and feelings about the patients I help and how I could help them
24. I feel overwhelmed because my case workload seems endless
25. I believe I can make a difference through my work
26. I am proud of what I can do to help
27. I feel "bogged down" by the system
28. I have thoughts that I am a "success" as a helper
29. I am a very caring person
30. I am happy that I chose to do this work

Self-care can be defined as the practice of taking an active role in protecting one's own well-being and happiness, in particular during periods of stress. Consider each of the following questions about you. Select the number that honestly reflects how frequently you experienced these things over the past year while working in the Veterinary industry.

1=Never 2=Rarely 3=Sometimes 4=Often 5=Regularly

31. I engaged in a variety of self-care strategies
32. I planned my self-care
33. I explored new ways to bring self-care into my life

In your own words, please answer the following questions in relation to your self-care practices:

34. Why do I feel satisfied/unsatisfied with my self-care routine? (Text box provided)
35. What do I need in order to achieve a sustainable self-care routine? (Text box provided)

The following was provided at the end of the questionnaire:

“Thank you for your incredibly valued participation in this survey.

Should you feel negatively impacted by any of the questions asked, please refer to the following services for support:

Samaritans- 116 123

Aware- 1800 80 48 48”

Depression Anxiety Stress Scale (Questions 6-11 inclusive)

DASS

Scoring Template

S
A
D
A
D
S
A
S
A
D
D
S
S
D
S
A
D
D
S
A
A

D

Apply template to both sides of sheet and sum scores for each scale.

For short (21-item) version, multiply sum by 2.

*Depression and anxiety were **not** assessed in this study.

Professional Quality of Life Scale (Questions 12-30 inclusive)

YOUR SCORES ON THE PROQOL: PROFESSIONAL QUALITY OF LIFE SCREENING

Based on your responses, place your personal scores below. If you have any concerns, you should discuss them with a physical or mental health care professional.

Compassion Satisfaction _____

Compassion satisfaction is about the pleasure you derive from being able to do your work well. For example, you may feel like it is a pleasure to help others through your work. You may feel positively about your colleagues or your ability to contribute to the work setting or even the greater good of society. Higher scores on this scale represent a greater satisfaction related to your ability to be an effective caregiver in your job.

If you are in the higher range, you probably derive a good deal of professional satisfaction from your position. If your scores are below 23, you may either find problems with your job, or there may be some other reason—for example, you might derive your satisfaction from activities other than your job. (Alpha scale reliability 0.88)

Burnout _____

Most people have an intuitive idea of what burnout is. From the research perspective, burnout is one of the elements of Compassion Fatigue (CF). It is associated with feelings of hopelessness and difficulties in dealing with work or in doing your job effectively. These negative feelings usually have a gradual onset. They can reflect the feeling that your efforts make no difference, or they can be associated with a very high workload or a non-supportive work environment. Higher scores on this scale mean that you are at higher risk for burnout.

If your score is below 23, this probably reflects positive feelings about your ability to be effective in your work. If you score above 41, you may wish to think about what at work makes you feel like you are not effective in your position. Your score may reflect your mood; perhaps you were having a “bad day” or are in need of some time off. If the high score persists or if it is reflective of other worries, it may be a cause for concern. (Alpha scale reliability 0.75)

Secondary Traumatic Stress _____

The second component of Compassion Fatigue (CF) is secondary traumatic stress (STS). It is about your work related, secondary exposure to extremely or traumatically stressful events. Developing problems due to exposure to other's trauma is somewhat rare but does happen to many people who care for those who have experienced extremely or traumatically stressful events. For example, you may repeatedly hear stories about the traumatic things that happen to other people, commonly called Vicarious Traumatization. If your work puts you directly in the path of danger, for example, field work in a war or area of civil violence, this is not secondary exposure; your exposure is primary. However, if you are exposed to others' traumatic events as a result of your work, for example, as a therapist or an emergency worker, this is secondary exposure. The symptoms of STS are usually rapid in onset and associated with a particular event. They may include being afraid, having difficulty sleeping, having images of the upsetting event pop into your mind, or avoiding things that remind you of the event.

If your score is above 41, you may want to take some time to think about what at work may be frightening to you or if there is some other reason for the elevated score. While higher scores do not mean that you do have a problem, they are an indication that you may want to examine how you feel about your work and your work environment. You may wish to discuss this with your supervisor, a colleague, or a health care professional. (Alpha scale reliability 0.81)

WHAT IS MY SCORE AND WHAT DOES IT MEAN?

In this section, you will score your test so you understand the interpretation for you. To find your score on **each section**, total the questions listed on the left and then find your score in the table on the right of the section.

Compassion Satisfaction Scale

Copy your rating on each of these questions on to this table and add them up. When you have added them up you can find your score on the table to the right.

3. _____
6. _____
12. _____
16. _____
18. _____
20. _____
22. _____
24. _____
27. _____
30. _____

Total: _____

The sum of my Compassion Satisfaction questions is	And my Compassion Satisfaction level is
22 or less	Low
Between 23 and 41	Moderate
42 or more	High

Burnout Scale

On the burnout scale you will need to take an extra step. Starred items are "reverse scored." If you scored the item 1, write a 5 beside it. The reason we ask you to reverse the scores is because scientifically the measure works better when these questions are asked in a positive way though they can tell us more about their negative form. For example, question 1. "I am happy" tells us more about

- *1. _____ = _____
*4. _____ = _____
8. _____
10. _____
*15. _____ = _____
*17. _____ = _____
19. _____
21. _____
26. _____
*29. _____ = _____

Total: _____

The sum of my Burnout Questions is	And my Burnout level is
22 or less	Low
Between 23 and 41	Moderate
42 or more	High

You Wrote	Change to	the effects of helping when you are <i>not</i> happy so you reverse the score
	5	
2	4	
3	3	
4	2	
5	1	

Secondary Traumatic Stress Scale

Just like you did on Compassion Satisfaction, copy your rating on each of these questions on to this table and add them up. When you have added them up you can find your score on the table to the right.

2. _____
5. _____
7. _____
9. _____
11. _____
13. _____
14. _____
23. _____
25. _____
28. _____

Total: _____

The sum of my Secondary Trauma questions is	And my Secondary Traumatic Stress level is
22 or less	Low
Between 23 and 41	Moderate
42 or more	High

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*Secondary Traumatic Stress Scale was **not** assessed in this study.

Mindful Self-Care Scale (Questions 31-35 inclusive)-

3 items (questions 31, 32 and 33)- Group averages.

Qualitative questions 34 and 35 assessed via Thematic Analysis.