

Original article

How management of grief associated with ending the life of an animal is taught to Australasian veterinary students

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Abstract

Veterinarians have an important role in supporting and understanding their clients' grief. Veterinary schools have a duty to teach students how best to manage grief – both that of the students/future veterinarians and the clients. This study explores how grief management, associated with ending the life of an animal, was taught to students in eight Australasian veterinary schools. A questionnaire-style interview guide was used by a representative at each university to conduct structured interviews with educators in a snowball sampling approach. Educators were interviewed about the teaching of grief management for four categories of animals: livestock, equine, companion, and avian/wildlife. The terms used by participants to describe what they taught were grouped into common themes. Teaching was defined by individual participants and included structured and unstructured approaches. The stage in the degree (pre-clinical or clinical years) that grief management was taught in the veterinary curriculum and by whom (e.g. clinicians or psychologists) is also described. Grief management was taught more in pre-clinical than clinical years. However, due to how grief was characterised, much of this teaching was general 'non-specific' teaching that included all categories of animals. Client grief was taught more generically, whereas, grief of veterinarians was taught using specific examples given by clinicians. A more robust end-of-life (EoL) management curriculum that includes all aspects of

grief management is likely to increase job satisfaction, client happiness, and professional satisfaction.

Key words: grief, euthanasia, end-of-life management, compassion fatigue, veterinary education

Introduction

Grief management is the most widely discussed area of veterinary end-of-life (EoL) management e.g. ^{1,2,3}. The abundance of references to grief management in the veterinary, and related, literature implies that it is an important topic for owners and veterinarians. Compared to their medical counterparts, veterinarians are more likely to encounter death; this is because they are usually the ones effecting it, and because their patients have short lifespans ⁴.

In Western social culture, grief relating to the loss of an animal is not always legitimised by peers ^{1,4-8}. Owners who struggle to deal with grief at the loss of their animal are at risk of complicated grief and depressive episodes, and anticipatory grief may cause them to delay euthanasia in an effort to avoid negative emotions ^{2,6}. There are obvious implications for animal welfare if animals experiencing poor quality of life are not euthanized in a timely manner ^{9,10}. Veterinarians, as members of an animal care profession, have an important role to play in supporting and validating their clients' grief ^{1,4,6,11}.

Veterinarians also suffer grief, or moral stress, associated with EoL management ^{9,12-15}. If not managed appropriately, veterinary grief can result in compassion fatigue and depressive episodes, both of which are detrimental to personal wellbeing and professional integrity ^{9,14}. Veterinary schools have an obligation to teach students how best to manage grief – both that of the students/future veterinarians and the clients ¹⁶. This training could enable future veterinarians to better manage the entire process of animal EoL care and help to fulfil their role as authorities in animal welfare ¹⁷.

Grief management is not explicitly noted in Codes of Professional Conduct e.g. ^{17,18} or as Day One competencies of graduating veterinarians e.g. ^{19,20-22}. Only effective communication skills are specifically mentioned. However, although communication

skills are important for effective grief management, it should be noted that this specific context is not mentioned by these accrediting or regulatory bodies.

Various topics pertinent to teaching of grief management have been explored, for example, how grief is experienced by animal owners^{6,23}, or how professional skills²⁴⁻²⁶ and communication^{27,28} are taught to veterinary students. Some authors have explored how EoL issues are taught to veterinary students, though, these earlier studies relied on curriculum documents or information obtained from heads of school or department e.g.^{7,29,30}. However, the accuracy of information gathered from curricula documents is questionable, and department heads are not always aware of the details of what is taught by their staff³¹. To the best of our knowledge, no studies have explored in detail how grief, associated with ending the life of an animal, is taught to veterinary students.

Our larger study aimed to explore how aspects of EoL management were taught to veterinary students in all eight Australasian veterinary schools. In Littlewood et al.³² we explored how technical EoL management was taught. We found that euthanasia techniques were taught at more universities in clinical years than pre-clinical years and outlined the importance of veterinary competency in the technical skills necessary to perform animal euthanasia. In the second part of this study³³, we explored how EoL decision-making was taught to these students. EoL decision-making was taught in an *ad hoc* manner. The majority of this teaching, for companion animals, relied on discussion of clinical cases, and because presentation of such cases is variable, it can be reasonably assumed that not all students are being taught how to make, or assist owners in making, EoL decisions. The present, and third part of the study, explores how management of grief, associated with ending the life of an animal, was taught to veterinary students. Specifically, we identified at which stage in the veterinary degree (pre-clinical or clinical) grief-related subjects were taught, how these topics were

taught (e.g. via lecture or during clinical rounds), who was responsible for this teaching (e.g. clinicians, academic, or psychologists), and what content was taught to veterinary students to assist with managing grief – both that of the students/future veterinarians and the clients.

Materials and Methods

The project was evaluated by peer review and, according to criteria set by Massey University Human Ethics Committees (MUHEC), judged by the authors to represent low risk to the participants, universities, and the veterinary community. Consequently, it was not reviewed by one of the Committees. Instead details of the project were notified to MUHEC (notification number 4000015103).

Data collection

Data were collected in structured interviews with educators (the ‘participants’) at all eight veterinary schools in Australasia. The curricula years assessed were 2015/2016. For full details of the data collection process, see Littlewood, Beausoleil, Stafford, Stephens, Collins, Fawcett, Hazel, Lloyd, Mallia, Richards, Wedler and Zito³². Briefly, a questionnaire was developed and first used to guide interviews with participants at Massey University in New Zealand. The final interview guide developed during this process was sent to a representative at each of the seven veterinary schools in Australia. The representatives who carried out the interviews with participants were academics involved in teaching animal welfare science or those who had special interests in animal welfare. All interviews were completed by January 2017.

The representative at each university approached participants they identified as likely to teach areas related to animal euthanasia, animal welfare, final year veterinary clinical rotations, veterinary ethics, and counselling or grief management. A snowball/chain sampling approach was used³⁴⁻³⁷; each participant was asked to

identify other individuals for interview. Thus, the number of participants interviewed varied among universities. Further details on data collection and interview guide design are provided below. During the interviews, representatives asked the questions in the interview guide and recorded each participant's answers. The representatives collated the data from all participants and reported the final results for that university in a tabular form.

Interview guide design

Full details of the interview guide design and implementation are given in a previous publication³². Questions were asked about four main categories of animals: 1 Livestock: cattle, sheep/goats, deer, pigs, llamas/alpacas; 2 Equine: horses, donkeys; 3 Companion animals: cats, dogs, small mammals (e.g. guinea pigs, rabbits, rats); and 4 Avian/Wildlife animals: chickens/waterfowl, birds, mammals, reptiles, fish, other. For each animal category, there were three sections (End-of-life (EoL) decision-making, Technical management, and Grief management). Each question was a combination of binary (yes/no) and open-ended questions.

Data about teaching of grief management came from one question: 'Do you teach undergraduate veterinary students how to manage grief, their own and their clients, in situations involving the following broad categories of animal species?' Participants who answered 'yes' were then asked for details of when in the veterinary program they taught such material, how it was delivered (e.g. lecture, tutorial), details of the content taught, and who taught these topics.

Information recorded for each university included: details of the degree structure, number of participants interviewed, the gender and graduation year of each participant (highest degree), number of participants who reported teaching grief

management material for each category of animal, and average number of veterinary science students in each annual intake (as a proxy for faculty or university size).

Data analysis

The intention was to use binary data from individual universities to construct frequency tables in Microsoft Excel to compare the stage of the degree, how it was taught, who taught it, and what was taught for each category of animal. Relevant teaching was counted once for a university in a category if at least one participant there mentioned teaching it. Information pertaining to university degree structure was used to assign teaching to either pre-clinical or clinical teaching.

However, tabulating frequency data according to animal category was not as effective as we had envisaged. Three of the eight representatives explicitly reported that teaching was generic across all animal categories. These representatives stated this on their response forms or wrote “as for livestock” or “same as above” under additional animal categories. One representative only completed the table for one animal category and explained in the comments section that it was because grief teaching was for all animal categories and not specific. Another four representatives gave responses that implied that much of the grief teaching was generic by repeating some statements between categories of animal. Because of these limitations, the frequency data were generated over all animal categories for the stage of the degree, how it was taught, and by whom.

Open-ended answers were captured in Microsoft Word and used to further explore the frequency data and to conduct a systematic thematic analysis of teaching content as per Braun and Clarke³⁸. A range of terms was used by representatives to describe the details of grief management teaching reported by participants. These were categorised by the first author based on common themes³⁹. For example, terms such

as 'euthanasia is a gift for animal's welfare', 'favour for animal', 'doing right thing for animal', and 'ending animal suffering' were all categorised as 'Doing right thing for animal'.

Results

Demographics

The degree structures of the eight veterinary schools are shown in Table 1. In three universities, the degree structure comprised four years of pre-clinical teaching following by one to two years of clinical teaching. In the other five universities, there were three pre-clinical years followed by one to three clinical years. One hundred and eleven participants were interviewed at eight veterinary schools. Participant numbers varied from 8 to 28 at a particular veterinary school ³².

(Place Table 1 here)

Timing and modality of grief management teaching

Students were taught about client and veterinarian grief in a number of ways. Grief teaching in pre-clinical years (reported at 8/8 universities) was mostly proactive and generic and taught via lectures or using role play. Participants at seven universities taught grief management via lectures, and seven representatives reported that tutorials or role play were used to teach grief management.

Most grief management teaching in clinical years (reported at 7/8 universities) was case-by-case or via tutorial or role play. Participants at four of the seven universities indicated that this teaching was unstructured or informal. Representatives gave examples of it being taught as a discussion about a specific clinical case that involved grief management in clinical years. Other representatives were less explicit and reported this teaching in clinical years on a case-by-case basis.

Grief management was taught differently by counsellors compared to clinicians

Participants at four of the eight universities reported using student counsellors to teach grief management. At two universities, some academics and clinicians reported not feeling qualified to teach grief management and told their representative that they rely on student counselling services to do this. Three universities did not use counsellors or external consultants to teach grief management and instead relied upon clinicians or academics.

Grief management teaching was apparently proactive if taught by counsellors and reactive if taught by clinicians. For example, counsellors at four universities taught students grief management strategies in pre-clinical years in preparation for later years, whereas, clinicians helped students and clients cope “if needed”. In other words, this would be taught if a case presented that the clinician thought necessitated grief management; owner or veterinary.

The four universities that used counsellors to teach grief management did so for general grief topics. For example, participants reported teaching ‘The SPIKES protocol for delivering bad news’⁴⁰ or ‘The grieving process’. In contrast to counsellors, clinicians reported giving students examples of cases that required grief management or might talk through the grief management aspects of a euthanasia case that had occurred during the student’s clinical rotation.

(Place Table 2 here)

Teaching content

The themes presented in Table 2 are an amalgamation, in short form, of common terms used by representatives to describe the detailed content of grief management

teaching reported by the participants they interviewed. These were divided into two overall categories: owner grief and grief for veterinarians. 'Grieving process/management' was the most commonly reported owner grief category and was taught at all eight universities. This was followed by 'How to support clients afterwards' and 'Communication skills' taught at 5 of 8 universities. Only one representative reported teaching 'Veterinarian makes decision'.

For grief of veterinarians, the category 'Managing own (veterinary) mental health' was reported by representatives at seven universities. This was followed by 'Veterinarian OK to show emotion or empathy' and 'Personal (veterinary) grief' which were both reported at 6 universities. However, one representative reported 'Veterinarian limits grief in front of client'.

Training was dependent on context of interaction with animal rather than animal category

When differences among animal categories were reported, they were minor. Participants at four universities specified different teaching relating to avian/wildlife animals. In particular, representatives reported that there is an "increased euthanasia incidence in wild patients...has grief implications" and there is a "greater need for compassion fatigue resources" for people dealing with these animals when compared with those working with other animals. Representatives often clarified which species grief management was taught about within this category, for example, one recorded "...not for fish or chickens". Some representatives gave less details for grief management teaching relating to wildlife in the avian/wildlife category or did not answer some sections for this animal category.

Participants described teaching grief management differently depending on their client's relationship, perceived or otherwise, with their animal. This difference was

most obvious when comparing the teaching for livestock and pet animals. Pet animals could be any hobby farm animal, pleasure horses, companion animals, birds or wildlife. Therefore, all of our animal categories were represented.

Some participants wanted to be clear to students that there can still be grief associated with loss of production animals: "...not to assume that there is no emotion/sadness/grief attached to production animals...". Others proposed to widen the gap between these categories by teaching students to have different discussions with companion animal and equine owners versus livestock farmers. For the livestock category, one representative at a university reported "Follow up with owners of 'pets'...Not treated like another livestock owner who doesn't care."

Companion animal teaching included examples of context-specific differences. For example, at one university, owner grief was not taught for shelter medicine, but was for client-owned animals. In contrast, compassion fatigue for veterinarians was taught more with respect to shelter medicine than other companion animals.

Participants recognised the need to improve veterinary grief management training
Representatives at four universities reported participant comments reflecting the need for improved grief management teaching to veterinary students. One of these representatives went as far as indicating that the head of university recognised the need for a dedicated grief counsellor on site.

A few of the clinicians who were interviewed recognised the need for more training in grief management for educators. They reported not being comfortable teaching grief management to students, despite recognising its importance.

Discussion

This study used structured interviews with educators at eight universities in Australasia to explore how grief management was taught to veterinary students in 2016. Specifically, we explored when grief management was taught in the curriculum, how it was delivered and by whom, and details of content taught. Overall, the findings suggest that general grief topics were taught, with minor details specific to animal categories. This teaching differed depending on how educators perceived the client's relationship with their animal. There were also differences in how (proactive or reactive) and when (pre-clinical or clinical years) this subject was taught, and this was dependent on whether the educator was a clinician or counsellor. Importantly, there was a clear recognition that grief management teaching needs to be improved in the veterinary universities studied.

Simply raising the issue has had an immediate effect; many representatives reported that the interview process had invited discussion about the current curriculum and how well it prepared students for navigating grief in clinical practice. Subsequent feedback to heads of schools resulted in increased EoL teaching in some participating universities. A number of these veterinary schools were undergoing curriculum changes during the interview process, while others have subsequently changed their curriculum to integrate grief education.

Grief management teaching was largely the role of academics and clinicians, whose own training in grief management was not known, with only small numbers of student counsellors or external consultants involved. It would benefit student learning to involve both clinicians and counsellors in the process of grief management training. Clinicians have the benefit of experience with clinical cases and the human-animal relationship, whereas, counsellors and psychologists have detailed knowledge of human psychology and proactive management strategies e.g. ^{41, 42}.

In this study, it was reported that counsellors taught grief management proactively, whereas, clinicians taught it reactively when students or clients needed it, that is, related to a specific clinical case. Proactive teaching is beneficial in that students may be better prepared for situations when they arise, and do not have to rely on educators recognising the need for it to be taught^{43, 44}. Additionally, this method of teaching ensures all students are taught how to deal with grief, rather than just those opportunistically exposed to clinical cases needing grief management discussions^{7, 32, 43, 44}.

However, a potential issue with proactive teaching is that students may not understand the need for it if it is taught early in the curriculum. This may lead to students disengaging from the learning process^{45, 46}. This lack of engagement may occur if proactive teaching is theoretical and didactic, rather than experiential and reflective. Experiential learning and reflective sessions encourage engagement with the material being presented^{47, 48}. However, managing clients' emotions may require additional communication skills training⁴⁹. Teaching grief management in clinical years has the benefit of students associating this teaching with a 'real world' case, client, and their animal(s). This association adds value to the material being taught and contributes to the students hidden curriculum^{50, 51}. The optimal pedagogical approach may be integrative, by teaching grief management generically in pre-clinical years, with some reflexive sessions, and following with a focus on experiential learning and specific cases, in later clinical years^{7, 43, 46, 47}.

The themes presented in Table 2 show the breadth and depth of grief management topics taught to veterinary students. General grief teaching was a major feature of the owner grief category. For example, students were taught about the human grieving process, how to manage it, how to support clients afterwards, and communication skills. Grief of veterinarians was taught generically, but participants also taught topics

specific to EoL management of animals. To illustrate, some students were taught to consider how much grief was appropriate for a veterinarian to display in front of his/her client during a euthanasia consultation. These findings suggest that client grief was dealt with more generically, whereas, teaching grief of veterinarians included more specific examples. This fits with the statement by participants that they were not comfortable teaching grief management with the result that they instead gave students anecdotes from their personal experience. Anecdotes can be helpful for students in professional careers, as it gives them practical, problem-based solutions to situations they may experience themselves^{45, 46}. However, these anecdotes can be problematic if the messages students receive from them are counter to earlier training in grief management. Anecdotes risk contributing towards a hidden curriculum that sends mixed signals to students and confuses their learning^{50, 51}. Curriculum alignment of topics between earlier (pre-clinical) and later (clinical) years has the potential to alleviate the potential for this form of hidden curriculum in veterinary education^{26, 52}.

In our study, grief management was taught relatively similarly across animal categories in the participating veterinary schools. Training in grief management depended more on how animals were used or the context of this use. Much of the literature focuses on grief experienced by companion animal owners because of the emphasis of the human-animal bond in this setting e.g.^{1, 3, 14}. As a result, livestock, equine, and avian/wildlife owners or guardians may be excluded from discussions of grief management¹¹. A client's relationship to his/her animal was a factor in how grief management was taught in these universities. This was particularly obvious when comparing livestock and pets and likely reflects differences in how animals are used or perceived, and people's relationship with them. For example, people are more likely to develop a close relationship with animals with which they share a house, such as their pets, whereas, the care of livestock species is unfamiliar to many people^{1, 2, 8, 53, 54}. This

close relationship may result in intense grief at the loss of a pet ^{1, 2, 23}. However, it is incorrect to assume that grief is only experienced as a result of the loss of a ‘pet’ or ‘companion’ animal ⁸. The human-animal relationship extends to that between farmer and livestock, although the type of relationship may differ ^{8, 54}. Farmers also experience helplessness or grief, and post-traumatic distress can be associated with losses to livelihood, and financial hardships, as a result of livestock death or depopulation ^{8, 11, 55}.

Participants reported that, when teaching management related to avian/wildlife, there was a “greater need for compassion fatigue resources”. This most likely happened because of the high euthanasia incidence occurring for wild or avian animals requiring veterinary intervention ⁵⁶. A number of authors have drawn attention to compassion fatigue in wildlife carers ^{57, 58} and veterinarians ⁵⁹. Our findings support the importance of this phenomenon in that veterinary educators recognised the need to teach students about compassion fatigue associated with wildlife care.

Veterinary students were often taught that “they are doing the right thing for the animal” by euthanizing it. Because this was reported in the grief management section of our survey, it implies educators believe this knowledge assists students with managing veterinary-associated grief. However, this may not be the case, and normalising death in an animal care profession, such as veterinary science, may lead to cognitive dissonance ^{12, 60} (i.e. where students alter their belief systems and behaviors to reduce the mental discomfort of conflicting attitudes). Given that performing animal euthanasia is an essential role for Western veterinarians, perhaps a better approach may be to remind students of the value of performing it, while also discussing ethical and welfare issues associated with carrying it out on animals under their care.

It is difficult to determine from these results exactly what was being taught to veterinary students in terms of grief. The 'grieving process', when reported, could have represented a huge area of EoL teaching, or it could have been limited to teaching students the typical stages of grief with very little information on how to deal with them in their clients or themselves. Alternatively, this could form a large section of the curriculum. The detail obtained in this study was insufficient to make these inferences. This, combined with the generic nature of the information reported, made the data difficult to analyse. However, grief management is clearly an important topic in veterinary education ¹⁻³.

Despite the majority of participants apparently agreeing that grief management is important in veterinary education, there were still participants who did not feel comfortable teaching it or who thought educators should be further trained in the area. It is important to note that the participants interviewed in this study were those that taught aspects of EoL management for animals. Therefore, they were best placed to discuss the grief associated with ending animal life. However, it appears that opportunity for teaching grief management did not match competency or confidence in teaching. Instead of relying on counsellors to teach grief management, it would be beneficial for clinical staff to be trained in dealing with grief education as cases arise. Alternatively, a multidisciplinary clinical team that includes human health professionals such as counsellors and psychologists may be the way forward for EoL management ⁶¹.

This study has described the current status of grief management teaching in Australasian veterinary education. Grief management was taught more formally in pre-clinical years than clinical years. However, due to how grief was characterised, much of this teaching probably represented general 'non-specific' teaching that included all categories of animals. These findings may have implications for how

veterinary grief management is taught internationally. Accreditation requirements of international regulatory bodies are not specific about grief management teaching in veterinary curricula e.g. ^{62, 63}. Therefore, this topic may not be recognised as a core curriculum requirement by many veterinary schools, leading to non-specific teaching of it, if at all. In Littlewood, Beausoleil, Stafford, Stephens, Collins, Fawcett, Hazel, Lloyd, Mallia, Richards, Wedler and Zito ³², teaching of technical euthanasia skills relied on a case presenting during a clinical rotation and the veterinarian being comfortable allowing student participation in the case. Grief management education during clinical rotations had the added complication that many clinicians were not confident, or did not feel it was their responsibility, to teach it.

Structured interviews were conducted and summarised by a representative at each university before being analysed by the main author. This introduces inherent bias in the data due to potential inconsistencies in the way representatives conducted interviews or created summaries from them. However, a structured interview was chosen over written surveys to allow for in-depth responses by participants to be collected and for representatives to further explain questions that may have otherwise been misunderstood. This method has also been shown to increase response rate ⁶⁴. Unfortunately, the primary interviews were not recorded for later analysis by a single person. This would have allowed for a more detailed thematic analysis of the data and would be best applied in subsequent studies ³⁸.

Future studies could directly examine links between veterinary teaching of grief management and competency in new graduates. Another aspect to consider is whether the material educators are reporting as having been taught is, in fact, consistent with what students are learning during their veterinary program. On the one hand, students should be learning skills they will require as a veterinary professional, but on the other, they are in a program for three to five years where the

emphasis is on assessment and grades being awarded. This adds to the 'hidden curriculum' in veterinary education^{65, 66} whereby students place greater emphasis on studying topics that are heavily assessed than those that are not. Examining the way in which aspects of EoL management, including grief management, are assessed may better inform the development of veterinary competency in these important areas of clinical practice.

There are many more topics that need to be covered in a veterinary curriculum on grief management (e.g. potential role of the veterinarian, what to do during a euthanasia consultation, supporting owner decisions, and offering ongoing support to grieving clients and veterinarians). Grief is not exclusive to companion animal clients, as livestock owners and those that work with avian/wildlife are also affected by grief, albeit in a different way^{8, 11, 58}. A more robust end-of-life management curriculum that includes aspects of a range of potential euthanasia techniques³², EoL decision-making³³, and grief management is likely to increase client happiness, and job satisfaction and professional satisfaction for the whole veterinary team.

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Conflict of interest

No conflict of interest declared.

References

1. Testoni I, De Cataldo L, Ronconi L et al. Pet Grief: Tools to Assess Owners' Bereavement and Veterinary Communication Skills. *Animals* 2019;9.
2. Testoni I, De Cataldo L, Ronconi L, Zamperini A. Pet Loss and Representations of Death, Attachment, Depression, and Euthanasia. *Anthrozoos* 2017;30:135-148.
3. Morris P. Managing pet owners' guilt and grief in veterinary euthanasia encounters. *Journal of Contemporary Ethnography* 2012;41:337-365.
4. Marton B, Kilbane T, Nelson-Becker H. Exploring the loss and disenfranchised grief of animal care workers. *Death Studies* 2019:1-11.
5. Redmalm D. Pet grief: when is non-human life grievable? *Sociological Review* 2015;63:19-35.
6. Adams CL, Bonnett BN, Meek AH. Owner response to companion animal death: development of a theory and practical implications. *Canadian Veterinary Journal-Revue Veterinaire Canadienne* 1999;40:33-39.
7. Dickinson GE, Roof PD, Roof KW. End-of-Life Issues in United States Veterinary Medicine Schools. *Society & Animals* 2010;18:152-162.
8. Chur-Hansen A. Grief and bereavement issues and the loss of a companion animal: People living with a companion animal, owners of livestock, and animal support workers. *Clinical Psychologist* 2010;14:14-21.
9. Rollin BE. Euthanasia, moral stress, and chronic illness in veterinary medicine. *Veterinary Clinics of North America-Small Animal Practice* 2011;41:651-659.
10. Knesl O, Hart B, Fine A et al. Veterinarians and humane endings: When is it the right time to euthanize a companion animal? *Frontiers in Veterinary Science* 2017;4:1-7.
11. Peck DF. Foot and mouth outbreak: Lessons for mental health services. *Advances in Psychiatric Treatment* 2005;11:270-276.
12. Fawcett A. Euthanasia and morally justifiable killing in a veterinary clinical context. In: Johnston J, Probyn-Rapsey F, editors. *Animal Death*. Sydney University Press, Sydney, Australia, 2013.

13. Sanders CR. Killing with kindness: Veterinary euthanasia and the social construction of personhood. *Sociological Forum* 1995;10:195-214.
14. Siess S, Marziliano A, Sarma EA, Sikorski LE, Moyer A. Why Psychology Matters in Veterinary Medicine. *Topics in Companion Animal Medicine* 2015;30:43-47.
15. Moses L, Malowney MJ, Boyd JW. Ethical conflict and moral distress in veterinary practice: A survey of North American veterinarians. *Journal of Veterinary Internal Medicine* 2018:1-8.
16. Molgaard LK, Hodgson, J.L., Bok, H.G.J., Chaney, K.P., Ilkiw, J.E., Matthew, S.M., May, S.A., Read, E.K., Rush, B.R., Salisbury, S.K. . *Competency-Based Veterinary Education: Part 1 - CBVE Framework*. Association of American Veterinary Medical Colleges, Washington, DC, 2018.
17. Anonymous. Code of Professional Conduct for Veterinarians. Veterinary Council of New Zealand, Wellington, 2011.
18. Anonymous. Code of Professional Conduct for Veterinary Surgeons. Royal College of Veterinary Surgeons, London, 2012:55-57.
19. Anonymous. OIE recommendations on the competencies of graduating veterinarians ('Day 1 graduates') to assure national veterinary services of quality. 2012.
20. Anonymous. Competency standards and performance indicators for veterinarians.
http://www.vetcouncil.org.nz/documentation/VCNZ_CompetencyStandardsAndPerformanceMeasuresForVeterinarians.pdf. n.d. Retrieved 25 January 2017.
21. Anonymous. Clinical procedures checklists. <https://www.rcvs.org.uk/document-library/pdp-competences-checklist/>. 2016. Retrieved 22 March 2017.
22. Anonymous. RCVS Day One Competences. <https://www.rcvs.org.uk/document-library/day-one-competences/>. 2014. Retrieved March 2019 2019.
23. Endenburg N, Kirpensteijn J, Sanders N. Equine euthanasia: The veterinarian's role in providing owner support. *Anthrozoös* 1999;12:138-141.

24. Tinga CE, Adams CL, Bonnett BN, Ribble CS. Survey of veterinary technical and professional skills in students and recent graduates of a veterinary college. *Journal of the American Veterinary Medical Association* 2001;219:924-931.
25. Adams CL, Conlon PD, Lone KC. Professional and veterinary competencies: Addressing human relations and the human animal bond in veterinary medicine. *Journal of Veterinary Medical Education* 2004;31:66-71.
26. Burns GA, Ruby KL, DeBowes RM, Seaman SJ, Brannan JK. Teaching non-technical (professional) competence in a veterinary school curriculum. *Journal of Veterinary Medical Education* 2006;33:301-308.
27. Butler C, Williams S, Koll S. Perceptions of fourth-year veterinary students regarding emotional support of clients in veterinary practice in the veterinary college curriculum. *Journal of the American Veterinary Medical Association* 2002;221:360-363.
28. Kogan LR, Butler CL, Lagoni LK et al. Training in client relations and communication skills in veterinary medical curricula and usage after graduation. *Javma-Journal of the American Veterinary Medical Association* 2004;224:504-507.
29. Dickinson GE, Paul ES. UK veterinary schools: emphasis on end-of-life issues. *Veterinary Record* 2014;174:1-2.
30. Shivley CB, Garry FB, Kogan LR, Grandin T. Survey of animal welfare, animal behavior, and animal ethics courses in the curricula of AVMA Council on Education-accredited veterinary colleges and schools. *Journal of the American Veterinary Medical Association* 2016;248:1165-1170.
31. Bath D, Smith C, Stein S, Swann R. Beyond mapping and embedding graduate attributes: bringing together quality assurance and action learning to create a validated and living curriculum. *Higher Education Research & Development* 2004;23:313-328.
32. Littlewood KE, Beausoleil NJ, Stafford KJ et al. Exploring how end-of-life management is taught to Australasian veterinary students. Part I: technical euthanasia. *Veterinary Record* 2018;183:1-10.

33. Littlewood KE, Beausoleil NJ, Stafford KJ et al. How decision-making about end-of-life management for animals is taught to Australasian veterinary students. *In Press* 2019.
34. Magalhaes-Sant'Ana M, Lassen J, Millar KM, Sandoe P, Olsson IAS. Examining why ethics is taught to veterinary students: A qualitative study of veterinary educators' perspectives. *Journal of Veterinary Medical Education* 2014;41:350-357.
35. Polkinghorne DE. Language and meaning: Data collection in qualitative research. *Journal of Counseling Psychology* 2005;52:137-145.
36. Lyons AC. Approaches to collecting data. In: Rohleder P, Lyons AC, editors. *Qualitative research in clinical and health psychology*. Palgrave Macmillan, London, UK, 2015:74-95.
37. Onwuegbuzie AJ, Leech NL. A typology of errors and myths perpetuated in educational research textbooks. *Current Issues in Education* 2005;8:1-13.
38. Braun V, Clarke V. *Successful qualitative research: A practical guide for beginners*. SAGE Publications Ltd, London, UK, 2013.
39. Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative research in psychology* 2006;3:77-101.
40. Baile WF, Buckman R, Lenzi R et al. SPIKES—a six-step protocol for delivering bad news: application to the patient with cancer. *The oncologist* 2000;5:302-311.
41. Maccallum F, Bryant RA. Symptoms of prolonged grief and posttraumatic stress following loss: A latent class analysis. *Australian and New Zealand Journal of Psychiatry* 2019;53:59-67.
42. Holcombe TM, Strand EB, Nugent WR, Ng ZY. Veterinary social work: Practice within veterinary settings. *J Hum Behav Soc Environ* 2016;26:69-80.
43. Tynjälä P. Perspectives into learning at the workplace. *Educational Research Review* 2008;3:130-154.
44. Magnier K, Wang R, Dale VHM et al. Enhancing clinical learning in the workplace: A qualitative study. *Veterinary Record* 2011;169:682-686.

45. Nandi P, Chan J, Chan C, Chan P, Chan L. Undergraduate medical education: Comparison of problem-based learning and conventional teaching. *Hong Kong Medical Journal* 2000;6:301-306.
46. Lane EA. Problem-based learning in veterinary education. *Journal of Veterinary Medical Education* 2008;35:631-636.
47. Barron D, Khosa D, Jones-Bitton A. Experiential Learning in Primary Care: Impact on Veterinary Students' Communication Confidence. *Journal of Experiential Education* 2017;40:349-365.
48. Chun R, Schaefer S, Lotta CC, Banning JA, Skochelak SE. Didactic and Experiential Training to Teach Communication Skills: The University of Wisconsin-Madison School of Veterinary Medicine Collaborative Experience. *Journal of Veterinary Medical Education* 2009;36:196-201.
49. Meehan MP, Menniti MF. Final-Year Veterinary Students' Perceptions of Their Communication Competencies and a Communication Skills Training Program Delivered in a Primary Care Setting and Based on Kolb's Experiential Learning Theory. *Journal of Veterinary Medical Education* 2014;41:371-383.
50. Hafferty FW. Beyond curriculum reform: Confronting medicine's hidden curriculum. *Academic Medicine* 1998;73:403-407.
51. Larkin M. JAVMA News: The hidden curriculum. *Journal of the American Veterinary Medical Association* 2017;250:1062-1084.
52. Baguley J. The role of final year extramural placements in the undergraduate veterinary curriculum. *Australian Veterinary Journal* 2006;84:182-186.
53. Sealey A, Charles N. "What Do Animals Mean to You?": Naming and Relating to Nonhuman Animals. *Anthrozoös* 2013;26:485-503.
54. Serpell JA. Factors influencing human attitudes to animals and their welfare. *Animal Welfare* 2004;13:S145-S151.

55. Olff M, Koeter MWJ, Van Haaften EH, Kersten PH, Gersons BPR. Impact of a foot and mouth disease crisis on post-traumatic stress symptoms in farmers. *British Journal of Psychiatry* 2005;186:165-166.
56. Tribe A, Brown PR. The role of wildlife rescue groups in the care and rehabilitation of Australian fauna. *Human Dimensions of Wildlife* 2000;5:69-85.
57. Hess L. Euthanasia: Considerations, Concerns, and Complications. *Journal of Avian Medicine and Surgery* 2013;27:53-58.
58. Yeung P, White B, Chilvers BL. Exploring Wellness of Wildlife Carers in New Zealand: A Descriptive Study. *Anthrozoos* 2017;30:549-563.
59. Rank MG. Nonhuman-animal care compassion fatigue. *Best Practices In Mental Health* 2009;5:40-61.
60. Bartram DJ, Baldwin DS. Veterinary surgeons and suicide: a structured review of possible influences on increased risk (vol 166, pg 388, 2010). *Veterinary Record* 2010;166:458-458.
61. Sharkin BS, Knox D. Pet loss: Issues and implications for the psychologist. *Professional Psychology-Research and Practice* 2003;34:414-421.
62. Anonymous. RCVS standards and procedures for the accreditation of veterinary degrees. Royal College of Veterinary Surgeons, London, UK, 2017.
63. Anonymous. Accreditation policies and procedures of the AVMA council on education. AVMA Council on Education, 2018.
64. Battistutta D, Byth K, Norton R, Rose G. Response rates: a comparison of mail, telephone and personal interview strategies for an Australian population. *Community Health Studies* 1983;7:309-313.
65. Gibbs G, Simpson C. Conditions Under Which Assessment Supports Students' Learning. *Learning and Teaching in Higher Education* 2005:3-31.
66. Sambell K, McDowell L. The Construction of the Hidden Curriculum: messages and meanings in the assessment of student learning. *Assessment & Evaluation in Higher Education* 1998;23:391-402.

Table 1. Veterinary science degree structures at eight Australasian Universities.

¹Pre-clinical years were defined as predominantly theory-based teaching, while Clinical years were defined as predominantly clinical/practical-based teaching by the individual representative at each university.

*Universities that were converting from an undergraduate (BVSc) to a postgraduate degree (DVM) at the time of the study (2015/2016 curricula years)

+Postgraduate years

University	Pre-clinical year(s) ¹	Clinical year(s) ¹	Average annual student intake
Massey University	1 to 4	5	124
Melbourne University	1 to 3 ⁺	4 ⁺	120
The University of Queensland	1 to 3	4 to 5	120
Charles Sturt University	1 to 4	5 to 6	65
The University of Sydney*	1 to 4	5	130
The University of Adelaide	1 to 3	4 to 6 ⁺	65
James Cook University	1 to 3	4 to 5	110
Murdoch University*	1 to 3	4 to 5 ⁺	105

Table 2. Categorisation of subject areas relating to grief management taught by III participants interviewed at eight Australasian Universities.

Categories have been formulated by the first author based on common themes in the responses.

Responses are short-hand versions of topics reported by representatives at each university.

CATEGORY	RESPONSES
OWNER GRIEF	
Grieving process/management	Multiple reasons for grief, About the grieving process, Different styles of grief responses, Grief of unmet future expectations, Types of grief and loss, Different expressions of grief, Stages of grief, Dealing with client grief, How to manage client grief, Provision of grief support, Cognitive behavioural therapy
How to support clients afterwards	How to support clients after, Follow-up phone call, OK for owner to feel better after, Send sympathy card, Send flowers, Resources for clients, Make post mortem arrangements, Memento of animal's hair, Tell client OK to get new pet, Console owner, Stay with owner after euthanasia
Communication skills	Communication, Communication skills, How to talk to owner, Calgary Cambridge guide, Delivering bad news, SPIKES for delivering bad news, SPIKES for communication
Anecdotes from veterinarian	Anecdotes and personal stories taught, Own experiences, Reflect on experiences
Individual owner differences	Client-orientated, Different client in different situation, Owner perspective, Cultural differences, Use different wording for different clients, Consider client perspective and needs
Human relationship to animals	Human-animal bond, Owner-animal relationship affects grief, What pet represents to owner, Attachment to animals, Different types of

	attachment people have, Pet versus production animal relationship, Different animal types, Endangered animals harder to euthanase, Longer-lived animals harder for owner, Less attachment to wildlife, Production animal owners grieve too
Support owner decision	Support owner decision, Validate owner decision, Support owner
Timing important	Time important, Do euthanasia quickly, Tell owner quickly, Discuss with owners at time
Owner stressors	Financial stress, Farmer stress and how to help, Large scale destruction and how to deal with producers
Veterinarian makes decision	Vet often makes decision for client
GRIEF OF VETERINARIANS	
Managing own (veterinary) mental health	Vet stress, Stress reduction strategies, Stress management, Stress counselling, Life balance, Setting boundaries, Mental health first aid, Emotional intelligence, Resilience, Manage own grief, Compassion fatigue, Impact on clinician, How clinician copes, Self-awareness, Self-care
Veterinarian OK to show emotion or empathy	OK for vet to show emotion, OK to show grief in front of client, Instil empathy in students, Show empathy, Be compassionate, Be understanding
Personal (veterinary grief)	Normal for vet to feel sad, OK to be upset, OK to be emotional, Explore personal grief, Longer hospitalised harder to euthanase, Personal grief, Longer working with animal makes it harder for vet, Self-reflection and ethics
Personal (veterinary) trauma	Vicarious trauma, Personal trauma, Accident trauma, Burnout, Mental health may be an issue
Dealing with difficult situations	Client guilt, Client personal trauma, Client psychological trauma, Dealing with anger,

	Dealing with difficult situations, Recognising signs of suicide, Managing clinic relationships, Referrals, Use a prognostic approach to manage
Doing right thing for animal	Euthanasia is a gift for animal welfare, Doing favour for animal, Doing right thing for animal, Ending animal suffering, Vets should not suffer grief
Death is part of being veterinarian	Death is part of industry, Part of art of veterinary practice, Not easy part of job
What to do during euthanasia consultations	Buy into client's beliefs, How to make death peaceful, Prewarn owner of potential euthanasia issues
Unique issues for wild animals	Team-based euthanasia decision for zoo animals, More wild animals killed than domestic
Veterinarian limits grief expression in front of client	Be professional, Professional means limiting emotion



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