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Continuing Professional Development: Researching Non-Technical Competencies can support Cognitive Reappraisal and Reduced Stress in Clinicians

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Abstract

Generic professional capabilities (non-technical competencies) are increasingly valued for their links to patient outcomes and clinician wellbeing. This study explores the emotional change, and practice-related outcomes, of participants of a veterinary professional key skills (PKS) Continuing Professional Development (CPD) module. Reflective summaries produced by participants were analysed. A change in emotion, from ‘negative’ to ‘positive’, was the focus of analysis. Sections regarding these emotions were thematically analysed. Analysis was performed on 46 summaries. Three themes were identified: ‘the PKS module’ (centred on reluctance becoming surprise and stimulation), ‘developing non-technical competencies’ (unease to confidence) and ‘stress and coping through a reflective focus’ (anxiety to harmony). The changing emotions were connected to positive cognitive reappraisal and often behaviour changes, benefitting self, practice, clients and patients.

The PKS module teaches participants to reflect; a new and challenging concept. The consequences of this enabled participants to understand the importance of professional topics, to be appreciative as well as critical, and to enjoy their job. Importantly, the module stimulated coping responses. Better understanding of roles led to participants having more reasonable expectations of themselves, more appreciation of their work and reduced stress. This research supports more attention to professional skills CPD for health professions.
Introduction

The need for clinical professionals within human and animal healthcare to maintain their ability to practise, through lifelong learning, is well-recognised. Learning should be competency-based and relevant to patient needs and the workplace (Miller and others 2010, Schostak and others 2010). A component of professional capability relies on up-to-date knowledge and practical technical competence, which historically were the foci of continuing development in all medical disciplines including anaesthesia and nursing (Fletcher and others 2001, Lee 2011). However, it is increasingly recognised that high quality patient outcomes are associated with more than knowledge and practical competence. Literature suggests the capable human healthcare clinician must integrate a range of competencies, attitudes and behaviours, including leadership (Clark and Armit 2010), mindfulness (Dobkin and others 2016), interpersonal (Di Blasi and others 2001) and interprofessional (Wilcock and others 2009) expertise.

The collective title ‘non-technical skills’, developed in the airline industry for this group of skills, is contentious (Kodate and others n.d., Nestel and others 2011). However, in its recent consultation, the UK General Medical Council referred to ‘generic professional capabilities’ as synonymous with the term ‘non-technical skills’ (GMC 2017), and the term has been used widely in medicine with reference to anaesthesia, emergency care (Flin and Maran 2004), surgery (Kodate and others 2012), and the education of medical students (Harvey and others 2015). In parallel, the veterinary literature has referred to non-technical skills (Lloyd and King 2004) or competencies (Lewis and Klausner 2003) and this latter term is adopted here.

Excellence of performance related to these non-technical competencies is associated with professional development and wellbeing. Within human healthcare, a lack of self-awareness (Thistlethwaite and Spencer 2008), poor communication and poor teamwork (Firth-Cozens 2003) have all been shown to contribute to stress, and stress results in reduced ability to take in
information (Heinström 2006), reduced clinical performance and poorer patient care (Delany and others 2015).

Although much of this cited literature relates to human healthcare, similarities with veterinary healthcare suggest an equivalent importance of non-technical skills, for which research has begun to provide an evidence base (Cake and others 2016). Non-technical skills are important to veterinarians in several ways, including: employer satisfaction (Danielson and others 2012), good communication leading to fewer complaints (Radford and others 2003, Russell 1994); and good leadership and interprofessional working reducing errors (Kinnison and others 2015, Oxtoby and others 2015).

Like initial clinical training, it can be hypothesised that continuing professional development (CPD) needs to focus on more than knowledge and practical ability; however a veterinary focus on the post-graduate non-technical skill set is currently lacking (Oxtoby and others 2015). Technical and non-technical skills will only be useful if delivered by capable and compassionate health professionals. A worrying trend for all health professions is the levels of stress and mental health problems (Firth-Cozens 2003), especially for veterinarians (Bartram and Baldwin 2010). Therefore, structured CPD programmes have started to be individual clinician-centred and to include development of non-technical competencies, through reflective consideration of these aspects in an individual’s own practice, and stimulated behaviour change (Armson and others 2015, May and Kinnison 2015).

The Royal College of Veterinary Surgeons (RCVS) has developed a Certificate of Advanced Veterinary Practice (CertAVP), targeted on general practitioners. The certificate includes a compulsory Professional Key Skills (PKS) module alongside a selection of clinical modules (for example, small animal surgery). Table 1 lists the range of PKS learning objectives.
PKS is not taught, and is instead based on adult learning theories, requiring participants to research and write reflective essays linked to module objectives. The series of broad essay titles is made available to participants at enrolment. Learning and assessment is based on Gibbs (1998) reflective learning cycle. Participants select an essay title that provides a framework for a personal experience to be described (Description), on which they reflect, in terms of their feelings (Feelings) and what went well and not so well (Evaluation), in the light of relevant literature and theories (Analysis). The cycle includes discussions with colleagues to gain ideas on possible alternatives (Conclusion), to plan for how they will handle such situations in the future (Action Plan). Learning is therefore self-directed, and the information participants gather and the opinions they form arise from their individual choices, interpretations and reflection upon experience. In support of their learning, they have access to a virtual learning environment where they can view relevant “starter” articles and partake in discussion boards with peers and tutors, but they are encouraged to engage in their own searches for peer-reviewed material, reports and books relevant to their chosen foci within the broad essay themes.

The reflective essays are graded and the participant receives detailed formative feedback. If judged unsatisfactory, participants use the feedback to improve the written piece before completing the next. The structure is a variant of the patchwork text approach to assessment (Winter 2003). The participants produced nine PKS essays before a final summative piece. The theme for this final essay is the nature of their learning and how they have begun, or plan, to behave differently in practice, based on their reflections on their experiences, the literature and the feedback from all formative essays.

Reflection, a retrospective “process that creates greater understanding of self and situations to inform future action”, is generally viewed as important in developing medical professional expertise (Sandars 2009 p. 685). Reflection has been reported to improve examination results in areas such as obstetrics and gynaecology (Lonka et al 2001) and as beneficially drawing students’ attention to
professional identity (Niemi 1997). However, there is little evidence of any benefits of reflection on long-term practitioner development and clinical care (Bernard and others 2012, Sandars 2009). It has been reported that an educational programme targeted on primary care physicians, focused on three reflective practices (mindfulness, narrative medicine and appreciative inquiry), led to sustained improvements in clinician empathy and wellbeing (Krasner and others 2009).

Initial research with outcomes of the PKS module revealed that the reflective study of non-technical competencies produced clinician behaviour change, leading to greater confidence, improved client satisfaction and patient outcomes, and a reduction of stress (May and Kinnison 2015). The importance of this latter observation led to this further work on the emotions experienced by PKS participants. It was hypothesised that the reflective process which supported a better understanding of the professional role had stimulated a change in the emotions felt by the clinicians as they engaged with their daily tasks. Further, it was hypothesised that examination of changes in emotions described within participant essays would enhance understanding of how stress was reduced, and their contribution to the previously reported improved personal, client and patient outcomes. The aim of this research was to identify common themes associated with a change from the negative emotions of many participants at the start of the programme to the more positive emotions they described after completion of the PKS module.

Methods

Participants

All individuals (120) who had completed a PKS reflective summary (the first cohort submitted in 2009) and had not taken part in prior research, were asked, via email in October 2015, for consent for their summaries to be analysed. Reminder emails were sent three and six weeks afterwards. Emails were sent by TK, who was described as an educational researcher, working alongside SM, Module Leader of PKS. TK had not been involved in the CertAVP.
Participants were informed of Ethics Committee approval (URN 2015 1360), and that the research would not impact their further studies. Summaries were retrieved for individuals who returned a completed consent form, and stated that their expressed opinions remained their genuine views. Summaries were collated by an intermediary and anonymised prior to distribution to the research team for analysis.

Analysis

The targets of analysis were instances where there was an identified change from negative to more positive feelings about a situation within a participant’s summary. This required the recognition of words describing emotions, and a decision on how these should be classified.

A search of the literature yielded a list of 127 terms (Gallagher and others 2003, Plutchik 2001, Russ 2013) which were used as a basis for identification of emotions when reading the summaries. Emotion wheels (Russell 1980, Yik and others 1999) organise emotional terms on a spectra of unpleasant to pleasant, and active/intense to deactivated/mild. In this study, the focus was on the pleasantness of the emotion (positive or negative) rather than its intensity. Some terms were ambiguous, such as ‘surprise’, and were categorised in context. Additionally, the literature-derived list of emotional terms required updating based on the summaries. Through reading the summaries and highlighting emotional terms in different colours based on their pleasantness, instances where a negative emotion became a positive emotion were identified and recorded.

Once a negative to positive sequence was recorded, the larger context of the emotional change was identified. Where appropriate, thematic analysis following the method of Braun and Clarke (2006), was conducted on the sections of the summary relating to the emotional change to clarify the factors identified by participants as being a cause of the change in emotion. This involved reading and re-reading of these sections, coding the data, collating similar codes and generating themes and
sub-themes which explained the context and reasons for a change in emotion. Where described, the outcomes associated with the emotional change were also analysed.

The analysis was conducted by TK, an educational researcher within the veterinary field. TK used simple highlighting, notes on the essays, and excel to develop codes and themes; her non-clinical background facilitated an inductive and unbiased approach to this research. This research is based on a constructivist ontology and interpretivist epistemology (Waring 2012). As such, it is founded on the concept of the co-construction of knowledge, and does not suggest that there is one correct way to analyse qualitative data thematically. This method was chosen in order to aid the aggregation of initial coded fragments into larger meaningful themes. Detailed descriptions of themes and extracts from the summaries (with participant codes) are provided to demonstrate the analysis’ reliability. In addition, iterative discussions with the co-author, an experienced veterinary surgeon, led to sense-making and face validity of the emerging themes and slight reconfiguring of sub-themes to aid understanding.

Results

Research consent was received from 46 participants (Table 2).

[Insert Table 2 about here]

During analysis, 89 terms were added to the list of emotion-related terms. The vast number of terms within the summaries suggests a large range of emotions felt by veterinarians and an independence and richness in their descriptions.

There were three overarching themes associated with changes in emotion. Within these themes, several sub-themes were developed which explained the change in emotion.

Theme 1 - PKS Module
The unique opportunities of the CertAVP motivated participants to enrol. For example, individuals had experienced a plateau of learning at work, or through traditional CPD, but anticipated benefits of the modular structure of the CertAVP, which allows for part-time study. Motivations such as “relishing the challenge” were cited, in conjunction with performance goals including improved job prospects.

However, participants tended to describe their initial emotions towards the Module as negative, namely “reluctance”. Over the course of the module, individuals noticed a reversal of their opinions. The module awoke a new emotion of surprise at its usefulness to their day-to-day life, driving the participants on with their studies. Sub-themes and examples related to this theme are outlined in Table 3.

Below are a selection of quotes that relate to the sub-themes:

“Initially I was sceptical about the value and relevance of the subjects... As I progressed through the module essays I discovered new areas of knowledge and interest I was unaware of. I found that the essays titles I found most difficult were also the ones I found most stimulating; perhaps my trepidation had been due to ignorance in these subject areas.” (559)

“On nearing completion of the module I am realising that the skills covered are those which make the difference between success and failure in practice.” (561)

This change was stimulated by writing the essays, and especially through developing self-directed learning and reflection. Reflection was a new experience for many, and although initially challenging and uncomfortable, it became a tool to drive forwards participants’ careers:

“I feel the most major personal development I have made during this module is learning how to reflect....I found it a frustrating process initially, but once practiced have found it a useful tool when...
analyzing my handling of different clinical situations and from this analysis what direction I need to take to be able to improve my skills.” (571)

The outcome of recognising the importance of, and reflecting upon, these topics related to becoming a better veterinary surgeon. Participants suggested this had benefits for their practice and clients, as well as for themselves. For example, increased motivation and the formation of a fully integrated professional identity:

“Before this module, I mostly felt like a vet when doing clinical work. With a more solid non-clinical base I now also feel like a vet outside clinical practice, in how I communicate, reason, interact with people, research and learn, and conduct myself as a professional.” (591)

Theme 2 - Developing Non-Technical Competencies

In-depth analysis was not undertaken for this theme as the reflective summaries varied in their topics, causing challenges in comparing sub-themes. The specific factors driving emotional change related to acquiring non-technical competencies relevant to the participants’ own practice. Topics included teamwork, communication and ethical dilemmas. Participants reported that through researching their chosen topics, emotions changed from frustration and unease to increased confidence in their behaviours, for example, knowing when to take charge and when to delegate.

Acquisition and development of non-technical competencies, relevant to individual practice, are therefore at the heart of the perceived value of the PKS module. Personal emotional benefits included greater enjoyment of work and feelings of being valued. Practice benefits included improved team spirit and team worth. All this and the incorporation of their new learning into their work led to benefits for their clients and animal patients, as identified by the participants.

Theme 3 – Stress and Coping through a Reflective Focus

Through researching stress for an essay, and through development of non-technical competencies, many practitioners had begun to implement changes in their daily lives and improved their
wellbeing. Various negative emotions were replaced by new emotions relating to coping and happiness. Example emotional changes and sub-themes are shown in Table 4.

Being a veterinarian was considered a stressful job; the widespread stress in the profession was highlighted through stories of colleagues and friends. One aspect of the job is the inability to maintain ideals:

[Literature demonstrates that] “over time senior vets place value on autonomy and clinical freedom compared to the altruism favoured by vet students. Looking at my own experiences, this almost inevitable failure to maintain the ideals once held may be partly responsible for ... the widespread stress in the profession.” (556)

Another is the fear of making a mistake, which can consume veterinarians without coping strategies:

“Like most other vets, I am good at agonising over cases but I have to try and learn from any mistakes and move on.” (564)

Some participants noted that stress should not be an accepted norm. Changing emotions was linked to participants’ reflection on ‘what they do’, leading to more reasonable expectations of themselves:

“Long hours in themselves are not necessarily stressful so long as we feel valued and supported. I feel more confident about deciding what I am capable of and comfortable doing, and ensuring I do not over-commit to others and fail to take care of myself.” (569)

This re-appraisal also included a better understanding of professional roles:

“The constant battle to overcome personal fears which result to stress is a common veterinary reality. Lack of knowledge and experience, especially in new graduates is a significant stress factor. Gaining knowledge is a critical way of coping with stress. Working for module completion
enlightened many dark rooms which I was afraid to walk through. The more I reflected, the more I was able to identify my stressors, and thus more able to deal with them...[including] accepting things that are beyond my power to change and recognizing the importance of a healthy lifestyle.”

Participants also described changes in ‘what they feel’ regarding their work, linked to better recognition of positive outcomes:

“I, like most people, have some feelings of inadequacy – however I have noticed improvement since beginning my CertAVP. ...I was surprised to recognise some of my traits in [the description of imposter syndrome, which has]... a very high correlation with stress and anxiety. This has made me think more about taking a small amount of pride in my achievements rather than dismissing them.”

Research for the module demonstrated to participants that they were not alone in feeling stressed and anxious. A better understanding of their part in the profession and their organisation enabled some participants to recognise stressors and change working practices to limit them, and to develop a support network:

"Reading around the subjects of vet’s burdens has legitimised my struggles and I feel less alone. I have learnt to respect my time off and not feel guilty for needing it... I have developed a group of friends who work in emergency and critical care hospitals, we have a mutual understanding that if our phones are on at night, we can call on each other to discuss challenging cases. ... I feel more a member of the profession than ever previously.”

Participants noted that through learning about stress and coping, they were able to offer support to colleagues as well as friends outside of the profession, thus suggesting benefits not only for themselves but for others.
It should be noted that, unfortunately, for some individuals, it is not always possible for stress to be resolved:

“I find clinical practice stressful and demanding... There is much advice on how to cope with stress in the profession, including better job readiness skills, better non-clinical skills and better boundaries to prevent situations unravelling to the point where it is too late to resolve. Unfortunately sometimes the work is too challenging, the working hours too long, the client and management demands too many and the work-life sacrifice too large. This reality is a reason why many friends and colleagues have left clinical practice.” (591)

Discussion

Engagement with CPD focused on non-technical competencies was identified as both an emotional and a cognitive experience for participants. Veterinarians at all career stages have been shown to prioritise practical technical competence above all other aspects of the professional role (Roder et al 2012, 2016) and, as confirmed in the present study, many are initially resentful of and reluctant to engage in reflecting upon the non-technical aspects of practice. This potentially stems from seeing non-technical competencies as ‘dumbing down’ qualifications and a distraction from key practical elements of CPD (Cross 2009, 2013). However, once directed to explore previously unconsidered topics (Mehta and others 2015), these participants, like others (May and Kinnison 2015), recognised the fundamental importance of non-technical themes, with one report describing the achievement of a fully-integrated professional identity (Nyström 2009) as the participant started to “feel like a vet outside clinical practice”.

The surprising relevance of non-technical competencies mediated the transition from negative to positive emotions about the learning experience itself. This developing understanding and ability to apply non-technical insights to practice then enabled the transition from negative to positive
emotions about the participants’ work. One aspect of this was organisational. As a result of their focus on efficient working practices, some participants were able to mitigate the effects of work overload through better prioritisation and more equitable distribution of labour, building on the strengths of the whole veterinary team (Ruby and DeBowes 2007, Kinnison and others 2014). This involves elements of practice management and leadership, competencies typically seen as ‘less important’ by stakeholders (Cake and others, 2016).

The other aspect was more personal, related to reflection and increased self-awareness. An important part of this “autobiographical internal dialogue”, that distinguishes it from a traditional academic approach, is the calming of the negative critical voice (Hughes 2009 p.451) and a balancing by a reflective theme of positive, appreciative inquiry (Irby and Hamstra 2016). Participants recognised that clinicians cannot expect to be perfect, and they will make mistakes and need to deal with these. Through reflection, participants described themselves recognising the positive aspects of their casework and giving this greater prominence alongside the negative. This process of “cognitively transforming the situation so as to alter its emotional impact” has been termed cognitive reappraisal (Gross 1998 p284, McRae and others 2012) and positive reframing (Stoeber and Janssen 2011). However, this reappraisal went further, to the heart of their professional role. They started to see the ideals related to their service role, which had caused so much stress, as needing to be balanced by a recognition of what clients could reasonably expect of them, and, linked to this, what they could and should reasonably expect of themselves (Armitage-Chan and others 2016, Bartram and others 2012). This enlightenment reduced the dissonance they had been experiencing, leading to greater harmony and reduced stress.

This combination of direct application of coping strategies by recognising and rebalancing negative emotions (Stoeber and Janssen 2011) and revision of their fundamental understanding of the clinician’s capability appears to be at the heart of the beneficial effects of this programme. A
The veterinarian’s main challenges are not technical, but social, ethical and economic in relation to decision-making.

The consequences of failure to have a balanced view of CPD, in support of all aspects of the professional role, include persistent mental health problems. Individuals are stressed when they feel overfaced and ill-prepared for the tasks they undertake (Agius and others 1996, Radcliffe and Lester 2003). The first clinical veterinary qualification pays much more attention to non-technical competencies. However, changes to CPD have been much less dramatic (Légaré and others 2015). It is important that professional bodies and employers address this imbalance, and evaluate the benefits of programmes focused on non-technical competencies at the higher levels in Kirkpatrick’s hierarchy, namely clinical behavioural change and patient and client benefits (Moore and others 2009).

This study has a number of limitations, most notably that the reflective summaries are a part of an assessed programme. However, these represent a remarkable resource of extended prose (1040 - 1499 words) produced by practitioners, most of whom would have struggled to engage in research as volunteers. Their acceptance as the authentic voice of these veterinarians is supported by the experiences described in nine earlier essays that contributed to the reflective summary, and participant confirmation that their essays represented their continuing views. A further limitation is that this is a convenience sample of veterinarians enrolled in the CertAVP who consented for their work to be analysed. Therefore, the beneficial outcomes need to be viewed as relevant to this group who have a desire to engage in CPD. However, as is clear from the results, many participants did not welcome the requirement to undertake the PKS module and were surprised by its relevance and lasting benefits for their practice and themselves. These narratives are self-reports rather than objective measures of change, although, in part, these are their strength. They represent personal accounts of a learning journey, with reflections linked to individual experiences and integrated in the summaries into an account of changes in attitudes and behaviours. While this research should be
followed up with ethnographic studies, qualitative research of this type is a way of exploring individual perspectives and interpretations of their beliefs and behaviours (Bryman 2004, Ritchie and others 2003). Finally, only negative to positive emotional changes were recorded. Examples of negative emotions remaining negative were identified, such as the final quote in the results, but further research could consider if any positive to negative emotional changes existed.

In conclusion, veterinarians recognise the importance of CPD in keeping their practical technical skills up-to-date. However, they often do not appreciate (or are reluctant to try) CPD relating to non-technical competencies. The CertAVP’s PKS Module can contribute to the realisation of important outcomes for veterinarians, including developing skills such as reflection, recognising your own development as a veterinarian, having reasonable expectations of yourself and coping with stress.

These findings support the development of more CPD focused on non-technical competencies, and veterinarians working in all roles, and with all species and specialities, should be encouraged to attend a mixture of CPD, including non-technical opportunities. Future research is required on how best to align the current needs of the profession with CPD provision to ensure the professional capability of veterinarians matches societal expectations and supports the wellbeing of members of the profession.

Acknowledgements

The authors thank all those busy practitioners who gave consent for their reflective accounts of their 'PKS journeys' to be used as the basis of this study.

Declaration of Interest

The authors report no declarations of interest.
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<table>
<thead>
<tr>
<th>PKS Module Learning Outcome Content</th>
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</thead>
<tbody>
<tr>
<td>Communication skills—involving clients, colleagues and other professionals, through dialogue and discussion as well as presentations</td>
</tr>
<tr>
<td>Personal development—including time and task management, personal and professional support networks and personal decision making</td>
</tr>
<tr>
<td>Welfare and ethics—including the RCVS Guide to Professional Conduct and its application, the role of veterinary practice in the broader context of society, animal welfare issues and interprofessional relationships</td>
</tr>
<tr>
<td>Business and personnel management—involving practice teamwork and delegation, human resource skills, financial and business planning, training of personnel, and practice promotion and marketing</td>
</tr>
<tr>
<td>Data handling—including effective use of IT, management of clinical and financial records, and evaluation, collection, critical analysis and use of relevant research/data</td>
</tr>
<tr>
<td>Legislation—including application of health and safety principles and legislation in veterinary practice, as well as other legislation affecting veterinarians</td>
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<tr>
<td>Alma Mater</td>
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<td>Bristol</td>
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<td>Liverpool</td>
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<td>RVC</td>
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<tr>
<td>Non-UK</td>
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<tr>
<td>Unknown</td>
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</tbody>
</table>
## Table 3 Negative to Positive Emotional Change relating to the Professional Key Skills Module itself (Theme 1)

<table>
<thead>
<tr>
<th>Example Emotions</th>
<th>Sub-Theme</th>
<th>Sub-theme examples</th>
<th>Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reluctance</td>
<td>Initial reluctance to overcome the obstacle of the PKS Module prior to clinical modules</td>
<td>Observed colleagues struggle with the PKS module</td>
<td></td>
</tr>
<tr>
<td>Trepidation</td>
<td></td>
<td>Unsure what to expect, contrast to university</td>
<td></td>
</tr>
<tr>
<td>Daunted</td>
<td></td>
<td>Perceived irrelevance of topics</td>
<td>Lack of value of topics to daily work, Lack of awareness of topics, Assumed confidence in topics, Previously ignored, boring, topics</td>
</tr>
<tr>
<td>Scepticism</td>
<td></td>
<td>Writing essays</td>
<td></td>
</tr>
<tr>
<td>Uncomfortable</td>
<td></td>
<td>Challenging nature of the PKS module</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reflection leading to recognition of relevance of module to daily casework</td>
<td>Uncomfortable reflection</td>
<td>Revisiting mistakes, Recognising lack of knowledge, Stressful and frustrating, Steep learning curve to reflect effectively</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Time and money</td>
<td></td>
</tr>
<tr>
<td>Surprise</td>
<td>Surprisingly relevant themes of the PKS module</td>
<td>Importance of non-clinical topics</td>
<td>Opportunity to spend time on topics would not have otherwise considered, Research evidence base for professionalism topics, Thought provoking and stimulating</td>
</tr>
<tr>
<td>Enjoyment</td>
<td></td>
<td>Reflection on me</td>
<td>Learned how to reflect rather than be self-critical over past events, Should be a part of life to drive forwards career</td>
</tr>
<tr>
<td>Fascination</td>
<td></td>
<td>Developed skills, knowledge and confidence</td>
<td>Literature searching, Writing skills, Structuring and presenting thoughts, Time management</td>
</tr>
<tr>
<td>Hope</td>
<td></td>
<td>Self-directed learning experience</td>
<td></td>
</tr>
<tr>
<td>Stimulation</td>
<td></td>
<td>Formal study and feedback</td>
<td></td>
</tr>
<tr>
<td>Outcomes - Benefits</td>
<td>Me</td>
<td>Better vet</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enjoy job and learning</td>
<td>Motivation for future study and work</td>
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<tr>
<td></td>
<td>Change of approach to work</td>
<td>Clients and patients</td>
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<tr>
<td>Example Emotions</td>
<td>Sub-Theme</td>
<td>Sub-theme examples</td>
<td>Codes</td>
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<tr>
<td>Stress</td>
<td>Veterinarians face stress in themselves and others</td>
<td>My own stress</td>
<td></td>
</tr>
<tr>
<td>Guilt</td>
<td></td>
<td>Colleagues’ stress</td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td></td>
<td>Friends/family’s stress</td>
<td></td>
</tr>
<tr>
<td>Struggle</td>
<td>Veterinary practices foster multiple stressors</td>
<td>Being a veterinarian is a stressful job</td>
<td>Workload and work life balance</td>
</tr>
<tr>
<td>Fatigue</td>
<td></td>
<td></td>
<td>Poor management</td>
</tr>
</tbody>
</table>

- e.f. Don’t just accept this
- Failure to maintain ideals
- Feelings of inadequacy
- Work tensions/constraints
- Ethical dilemmas
- Complaints and mistakes

| Reflection leading to Coping Mechanisms and Development of General Professional Skills |
|---------------------------------|--------------------------------|-----------------------------|
| Coping                          | Cognitive reframing             | View of Self – What I Do    |
| Enlightenment                   |                                  | Reasonable expectations of self |
| Enjoyment                       |                                  | Increased knowledge of professional role |
| Harmony                         |                                  | |
| Happy                           |                                  | View of Self – What I Feel  |
|                                 |                                  | Acceptance: It’s not just me |
|                                 |                                  | Recognise Imposter Syndrome |
|                                 |                                  | Develop a positive attitude |
|                                 |                                  | View of Organisation        |
|                                 |                                  | Recognise work stressors and my resulting stress |
|                                 |                                  | Change working practices    |
|                                 |                                  | Utilise support network      |
|                                 |                                  | e.f. Some veterinarians cannot cope |
| Far reaching outcomes - Benefits |                                  | Me                          |
|                                 |                                  | Reducing stress – enjoy job  |
|                                 |                                  | Clients and patients         |
|                                 |                                  | Improved outcomes, including better communication |
|                                 |                                  | Colleagues (including students) |
|                                 |                                  | Reduce stress in colleagues  |
|                                 |                                  | Friends/family               |
|                                 |                                  | Reduce stress in friends/family |