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How Can Nurses Improve Pain Management Within the Veterinary Clinic?

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Introduction

Analgesia is underused within the small animal veterinary clinic (Flecknell, 2008), despite the fact that all of the commonly presented conditions are painful (Nielson, Dean, Robinson, Massey, & Brennan, 2014). Pain becomes a welfare issue through direct suffering (both physical and emotional) (Leach, Klaus, Miller, Scotto di Perrotolo, Sotocinal, & Flecknell, 2012) and worsening of medical outcomes (Robertson, 2002).

Michie, van Stralen and West (2011) proposed a 'behaviour system', the COM-B model, which suggests that three conditions are essential for a person to perform a specific behaviour. When applied to the administration of analgesia, the three conditions are (**Figure 1**):

1. the person must be capable of both identifying and treating pain (both physically and psychologically)
2. the person must have the opportunity to identify and treat pain
3. the person must be motivated to identify and treat pain

Pain management is the responsibility of both nurses and veterinary surgeons. The presence of nurses in practice is positively associated with increased analgesic use, primarily because they rate the level of pain experienced by patients higher than veterinary surgeons (Dohoo & Dohoo, 1996). In this article, we discuss factors that affect the likelihood of an individual managing pain actively in their veterinary

patients, and suggest methods for nurses to increase the frequency of analgesic use within their own practice.

Capability

Physical

The physical ability to administer analgesics is unlikely to be a barrier. However, capability to identify and assess pain is a skill that needs development. Humans are instinctively good at reading unfamiliar dog behaviour (Tami & Gallagher, 2009), due to a long history of human-dog co-evolution (Miklósi, 2015). Veterinary nurses rate pain levels more highly for procedures involving dogs than in cats (Dohoo & Dohoo, 1996). Many studies have shown that dogs are more likely to receive analgesia than cats, most recently, Raekallio, Heinonen, Kuussaari and Vainio (2003).

By contrast, pain communication that is obvious to humans has not evolved in other less-domesticated or prey species, because the behaviour would not solicit help in the wild and might attract predator attention. Additionally, pain behaviours in some species are imperceptible – painful rodents vocalise above the upper threshold of human hearing (Wolfensohn & Lloyd, 2003).

The skill of pain assessment needs to be taught. Recent studies in New Zealand reported that 42% of veterinary surgeons treating cats and dogs and 77%

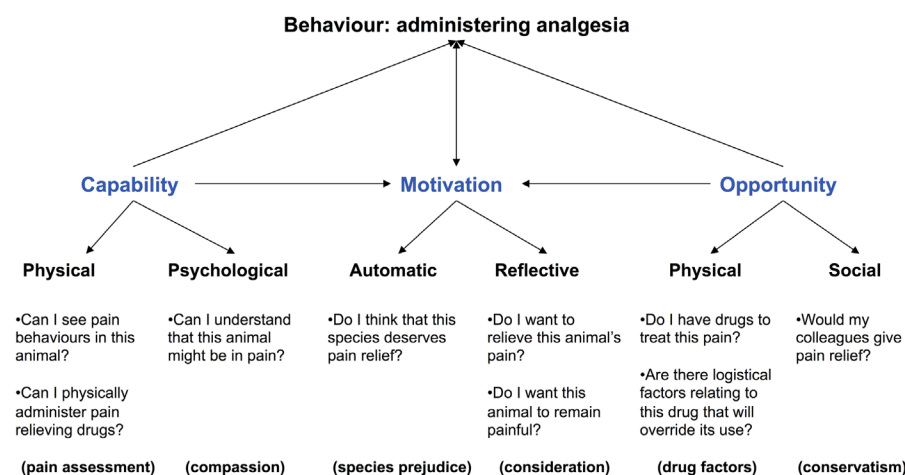


Figure 1. The COM-B model applied to the behaviour of analgesia administration in the small animal veterinary practice

treating rabbits and guinea pigs believed their pain recognition and assessment to be inadequate (Williams, Lascelles, & Robson, 2005; Keown, Farnworth, & Adams, 2011). A 1998 Canadian study of veterinary technicians reported that pain assessment is learned primarily through experience in practice and additionally from continuing education courses (Dohoo & Dohoo, 1998). Nurses who have been qualified longer score pain higher (Coleman, 2005). Therefore, both experience and education can improve the assessment of pain.

A standardised pain-assessment protocol provides an evidence base for analgesic use. Validated pain-scoring scales exist for dogs and cats – the Glasgow Short Form Composite Measure Pain score for dogs (Reid, Nolan, Hughes, Lascelles, Pawson, & Scott, 2007) and the UNESP Botucatu Multidimensional Composite Pain Scale for cats (Brondani, Mama, Luna, Wright, Niyom, Ambrosio, Vogel, Padovani, 2013). There are no equivalent scales as yet for other small companion animal species.

Psychological

The psychological capability to see pain requires empathy (the ability to recognise suffering) and compassion (the desire to relieve suffering). Female, young or recently graduated veterinary surgeons are more sensitive to animal pain and give more pain relief than male or older graduates, most recently, Fajt, Wagner and Norby (2011). Women generally have higher levels of empathy (Toussaint & Webb, 2010), perhaps explaining high

empathy among veterinary nurses, who were 98% female in 2014 (Williams & Robinson, 2014).

Desensitisation, in this context, refers to a decline in compassion. This occurs for several reasons. Paul and Podberscek (2000) found declining levels of empathy among veterinary students as they progressed through their degree programme. A phenomenon known as the 'collapse in compassion' (Daryl & Keith, 2011) is reported in people when faced with extensive suffering: they have high compassion for one individual sufferer, but low compassion for many sufferers. Considering that a practice often has many painful patients: compassion fatigue may be a form of emotional self-defence (Hewson, Dohoo, & Lemke, 2006).

Opportunity

Physical

In the UK or US market, availability of analgesic drugs is assumed and the physical opportunity to administer is unlikely to be a barrier.

Logistical

The financial costs of both drugs and increased staff time – pain assessments must be repeated regularly to be useful (Flecknell, 1994) and analgesic infusions require supervision – are often perceived to be barriers to analgesic use. Williams et al. (2005) found that 25% of New Zealand veterinary surgeons 'felt constrained from using the degree of pain relief they felt was ideal, by the owner's budget'. However, further evidence suggests that owners are willing to pay for analgesia: American pet owners prefer neutering services that include, and charge for, analgesia (Lue, Pantenburg, & Crawford,

2008). Likewise, a UK survey reported that 77.7% of owners expect post-operative pain relief to be dispensed (Demetriou, Geddes, & Jeffrey, 2009).

Pharmacology itself may also be perceived as a barrier. Concern over side effects was cited as a factor in older studies (Dohoo & Dohoo, 1996, 1998), but is less common now (Keown et al., 2011).

Anxiety about masking important symptoms may also reduce early analgesia use (Nelson, Cohen, Lander, Crawford, Viccellio, & Singer, 2004). Also, the time needed to research and get consent for off-label drug use can deter their use (Keown et al., 2011), as can the legal requirements of keeping powerful pure μ -opioid agonist painkillers under lock and key (Capner, Lascelles, & Waterman-Pearson, 1999).

Social

Where appropriate analgesic protocols are not in place, conservative attitudes will oppose any change, and this can affect judgements about pain (Schofield & Williams, 2002). Conversely, Raekallio et al. (2003) found that veterinary surgeons working in larger practices were more attuned to the use of analgesics than those working in smaller practices – perhaps attributable to pooled knowledge from a greater number of colleagues, and access to a larger variety of pain-relieving drugs.

In addition, retrospective guilt can arise from acknowledging that previous actions increased patient suffering. The longer that a person has been adhering to a protocol, the harder it becomes for them to acknowledge that the protocol is wrong and to change their behaviour.

Motivation

Automatic

In both companion animal medicine (Lascelles et al., 1999) and laboratory animal medicine (Coulter, Flecknell, & Richardson, 2009), larger species are more likely to receive analgesia than smaller species. Small mammals, birds and reptiles frequently receive inadequate analgesia in practice (Hawkins, 2006). This may arise from 'species prejudice' – allocation of moral status to animals depending on their classification: for example, 'pet', 'pest' or 'food' (Herzog, 2010).

For example, compare the treatment, at your practice, of either an owned cat or a

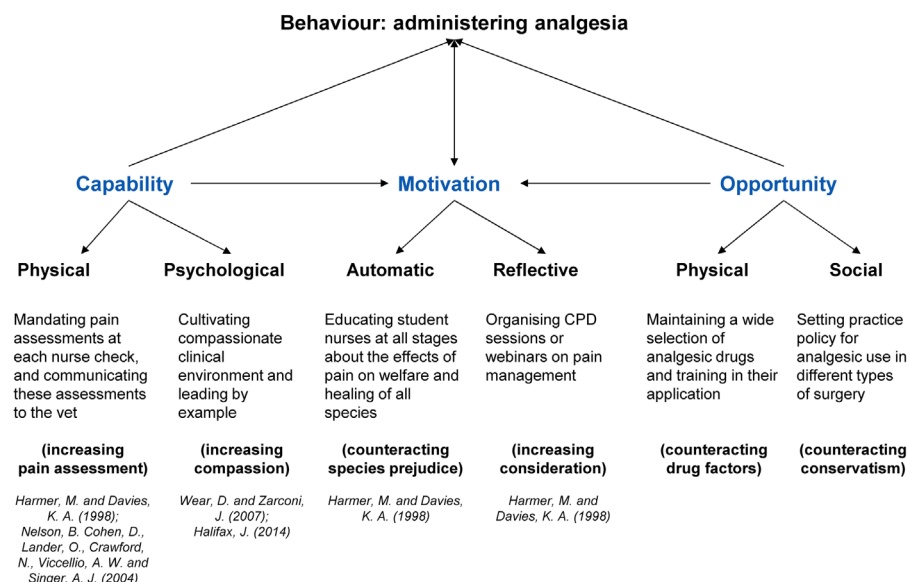


Figure 2. Nurse-led interventions for increasing analgesia administration in the veterinary clinic

wild pigeon with a head injury. A combination of reduced empathy for the pigeon, reduced 'moral status' of the pigeon, little knowledge of pain behaviour and no paying client is almost certain to lead to vastly different levels of analgesia.

Reflective

In order for veterinary nurses or surgeons to be motivated to treat pain, they must understand the negative effects that pain will have on the animal's welfare, healing and return to normal behaviour (Robertson, 2002). If this is not appreciated, practitioners may prefer to withhold analgesia to restrict movement through pain. Capner et al. (1999) found that 30.4% of veterinary surgeons believed that 'a degree of pain is required to keep an animal quiet post surgery'. Recent evidence demonstrates that pain is detrimental to recovery (Epstein et al., 2015). Once pain is understood to be a problem, it is obvious that there are more appropriate methods to restrict movement, for example cage rest or suitable bandaging.

Motivating better pain management in the veterinary clinic

Figure 2 maps intervention suggestions for increasing analgesia usage onto this COM-B model.

Nurses can act to alter current behaviours in several ways:

- by influencing practice policy on ordering and maintaining a range of analgesic drugs (Raekallio et al., 2003)
- by guiding practice policy on routine analgesic use and pain assessment (Nelson et al., 2004)
- by organising education in pain management for student nurses, qualified nurses and veterinary surgeons (Harmer and Davies, 1998)
- by creating and supporting a compassionate clinical environment and providing role models (Wear and Zarconi, 2007; Halifax, 2014)

Conclusion

Pain management and analgesic use is not optimal in most small animal veterinary clinics. Understanding the behavioural reasons for this will reveal a number of methods that nurses can employ to improve pain management for the veterinary patients under their care.

References

Brondani, J.T., Mama, K. R., Luna, S. P.L., Wright, B. D., Niyom, S., Ambrosio, J., Vogel, P.R., & Padovani, C. R. (2013). Validation of the English version of the UNESP-Botucatu multidimensional composite pain scale for assessing postoperative pain in cats. *BioMedCentral Veterinary Research*, 2013(9), 143.

Capner, C. A., Lascelles, B. D. X., & Waterman-Pearson, A. E. (1999). Current veterinary British attitudes to peri-operative analgesia for dogs. *Veterinary Record*, 145, 95–99.

Coleman, D. L. (2005). VN attitudes to pain assessment and scales. *Veterinary Nursing Journal*, 20, 31–32.

Coulter, C. A., Flecknell, P.A., & Richardson, C. A. (2009). Reported analgesic administration to rabbits, pigs, sheep,

dogs, and non-human primates undergoing experimental surgical procedures. *Laboratory Animals*, 43, 232–238.

Daryl, C. C., & Keith, P.B. (2011). Escaping affect: How motivated emotion regulation creates insensitivity to mass suffering. *Journal of Personality and Social Psychology*, 100(1), 1–15.

Demetriou, J. L., Geddes, R. F., & Jeffery, N. D. (2009). Survey of pet owners' expectations of surgical practice within first opinion veterinary clinics in Great Britain. *Journal of Small Animal Practice*, 50, 478–487.

Dohoo, S. E., & Dohoo, I. R. (1996). Factors influencing the post-operative use of analgesics in dogs and cats by Canadian veterinarians. *Canadian Veterinary Journal*, 37, 552–556.

Dohoo, S. E., & Dohoo, I. R. (1998). Attitudes and concerns of Canadian animal health technologists towards post-operative pain management in dogs and cats. *The Canadian Veterinary Journal*, 39, 491–496.

Epstein, M. E., Rodanm, I., Griffenhagen, G., Kadrlík, J., Petty, M. C., Robertson, S. A., & Simpson, W. (2015). AAHA/AAFP pain management guidelines for dogs and cats. *Journal of Feline Medicine and Surgery*, 3, 251–272.

Fajt, V. R., Wagner, S. A., & Norby, B. (2011). Analgesic drug administration and attitudes about analgesia in cattle among bovine practitioners in the United States. *Journal of the American Veterinary Medical Association*, 238, 755–767.

Flecknell, P.A. (1994). Refinement of animal use—Assessment and alleviation of pain and distress. *Laboratory Animals*, 28, 222–231.

Flecknell, P.A. (2008). Analgesia from a veterinary perspective. *British Journal of Anaesthesia*, 101(1), 121–124.

Halifax, J. (2014). G.R.A.C.E. for nurses: Cultivating compassion in nurse/patient interactions. *Journal of Nursing Education and Practice*, 4(1), 121–128.

Harmer, M., & Davies, K. A. (1998). The effect of education assessment and a standardised prescription on post-operative pain management: the value of the clinical audit in the establishment of pain services. *Anaesthesia*, 53, 424–430.

Hawkins, M. G. (2006). The use of analgesia in birds, reptiles, and small exotic mammals. *Journal of Exotic Pet Medicine*, 15, 177–192.

Herzog, H. (2010). *Some we love, some we hate, some we eat. Why it's so hard to think straight about animals*. New York, NY: Harper Collins Publishing.

Hewson, C. J., Dohoo, I. R., & Lemke, K. A. (2006). Factors affecting the use of post-incisional analgesics in dogs and cats by Canadian veterinarians in 2001. *Canadian Veterinary Journal*, 47, 453–459.

Keown, A. J., Farnworth, M. J., & Adams, N. J. (2011). Attitudes towards perception and management of pain in rabbits and guinea pigs by a sample of veterinarians in New Zealand. *New Zealand Veterinary Journal*, 59, 305–310.

Lascelles, B. D. X., Capner, C. A., & Waterman-Pearson, A. E. (1999). Current British veterinary attitudes to peri-operative analgesia for cats and small mammals. *Veterinary Record*, 145, 601–604.

Leach, M. C., Klaus, K., Miller, A., Scotto di Perrotolo, M., Sotocinal, S. G., & Flecknell, P.A. (2012). The assessment of post-vasectomy pain in mice using behaviour and the mouse grimace scale. *PLoS ONE*, 7, e35656. doi:10.1371/journal.pone.0035656

Lue, T.W., Pantenburg, D. P., & Crawford, P.M. (2008). Impact of the owner-pet and client-veterinarian bond on the care that pets receive. *Journal of the American Veterinary Medicine Association*, 232, 531–540.

Michie, S., van Stralen, M. M., & West, R. (2011). The behaviour change wheel: a new method for characterising

and designing behaviour change interventions. *Implementation Science*, 6(42), 1–11.

Miklósi, A. (2015). *Dog behaviour, evolution and cognition* (2nd ed.). Oxford: Oxford University Press.

Nelson, B., Cohen, D., Lander, O., Crawford, N., Viccellio, A. W., & Singer, A. J. (2004). Mandated pain scales improve frequency of E.D. analgesic administration. *The American Journal of Emergency Medicine*, 22, 582–585.

Nielson, T. D., Dean, R. S., Robinson, N. J., Massey, A., & Brennan, M. L. (2014). Survey of the UK veterinary profession: common species and conditions nominated by veterinarians in practice. *Veterinary Record*, 174, 324.

Paul, E. S., & Podberscek, A. L. (2000). Veterinary education and students' attitudes towards animal welfare. *Veterinary Record*, 146, 269–272.

Raekallio, M., Heinonen, K. M., Kuussaari, J., & Vainio, O. (2003). Pain alleviation in animals: Attitudes and practices of Finnish veterinarians. *The Veterinary Journal*, 165, 131–135.

Reid, J., Nolan, A. M., Hughes, J. M. L., Lascelles, D., Pawson, P., & Scott, E. M. (2007). Development of the short form composite measure pain scale (CMPS—SF) and derivation of an analgesic intervention score. *Animal Welfare*, 16, 97–104.

Robertson, S. A. (2002). What is pain? Animal welfare forum: Pain management. *Journal of the American Veterinary Association*, 2, 202–205.

Schofield, J. C., & Williams, V. M. (2002). *Analgesic best practice for the use of animals in research and teaching: An interpretative international literature review*. NZ: National Ethics Advisory Committee. Biosecurity.

Tami, G., & Gallagher, A. (2009). Description of the behaviour of the domestic dog (*Canis familiaris*) by experienced and inexperienced people. *Applied Animal Behaviour Science*, 120(3), 159–169.

Toussaint, L., & Webb, J. R. (2010). Gender differences in the relationship between empathy and forgiveness. *Journal of Social Psychology*, 145, 673–685.

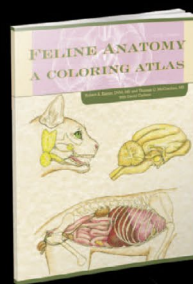
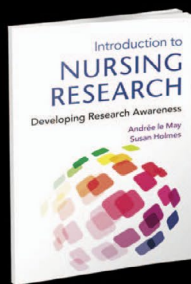
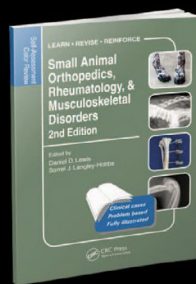
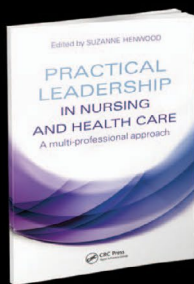
Wear, D., & Zarconi, J. (2007). Can compassion be taught? Let's ask our students. *Journal of General Internal Medicine*, 23, 948–943.

Williams, M., & Robinson, D. (2014). The 2014 RCVS survey of the veterinary nurse profession. *Institute for Employment Studies. IES project code 00194-3382*.

Williams, V. M., Lascelles, B. D. X., & Robson, M. C. (2005). Current attitudes to, and use of, peri-operative analgesia in dogs and cats by veterinarians in New Zealand. *New Zealand Veterinary Journal*, 53, 193–202.

Wolfensohn, S., & Lloyd, M. (2003). *Handbook of laboratory animal management and welfare* (3rd ed.). Oxford: Blackwell Publishing.

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