

The veterinary nurse's perception of the ethics of major maxillofacial surgery in dogs



Rachel Lily Gardiner BSc (Hons) RVN
(rachelgardiner@hotmail.com)

Stephen Baugh BSc (Hons) BVM&S MRCVS PgCert SFHEA
Harper Adams University
(sbaugh@harper-adams.ac.uk)

Introduction

Every day in veterinary medicine decisions are made regarding ethical treatment, where reason and emotion are often at battle (Herzog, 2011).

- Canine major maxillofacial surgery (MMS) provides the opportunity for prolonged tumour-free remission for neoplasms of the oral cavity or maxillofacial composition (Lascelles *et al.*, 2004).
- Complex major surgical procedures, which have previously been performed on consenting humans, are now being transferred to veterinary medicine.
- Though this opportunity is a privilege, it does not come without ethical implications, considering the view just because we can, does it mean we should?
- Understanding the ethical viewpoints employed by veterinary professionals is fundamental to the maintenance of animal welfare.

Therefore, this study aims to explore the veterinary nurse's perception of the ethics of major maxillofacial surgery in dogs.

- Ethical studies regarding veterinary professionals is extremely scarce, thus indicating a need for further development and understanding in modern veterinary medicine.
- Therefore, this study aims to develop an open-minded insight into the ethical and moral viewpoints that influence modern veterinary treatment, and to understand the ethical principles that are subconsciously or consciously adopted by individuals to aid in ethical decision making.

Methods

Ethics is a multifaceted subject which was deemed too complex to be explored through the 'tick-box' questions associated with a survey approach, therefore semi-structured interviews were conducted.

- It was considered beneficial that not all interviewees would interpret questions the same and that answers may differ drastically (Bloor, 2011).
- Because the study included sensitive topics and the use of graphic images, open-ended questions were used to make interviewees feel more comfortable, enabling them to control the depth to which they answered the questions (Deacon and Brough, 2021).

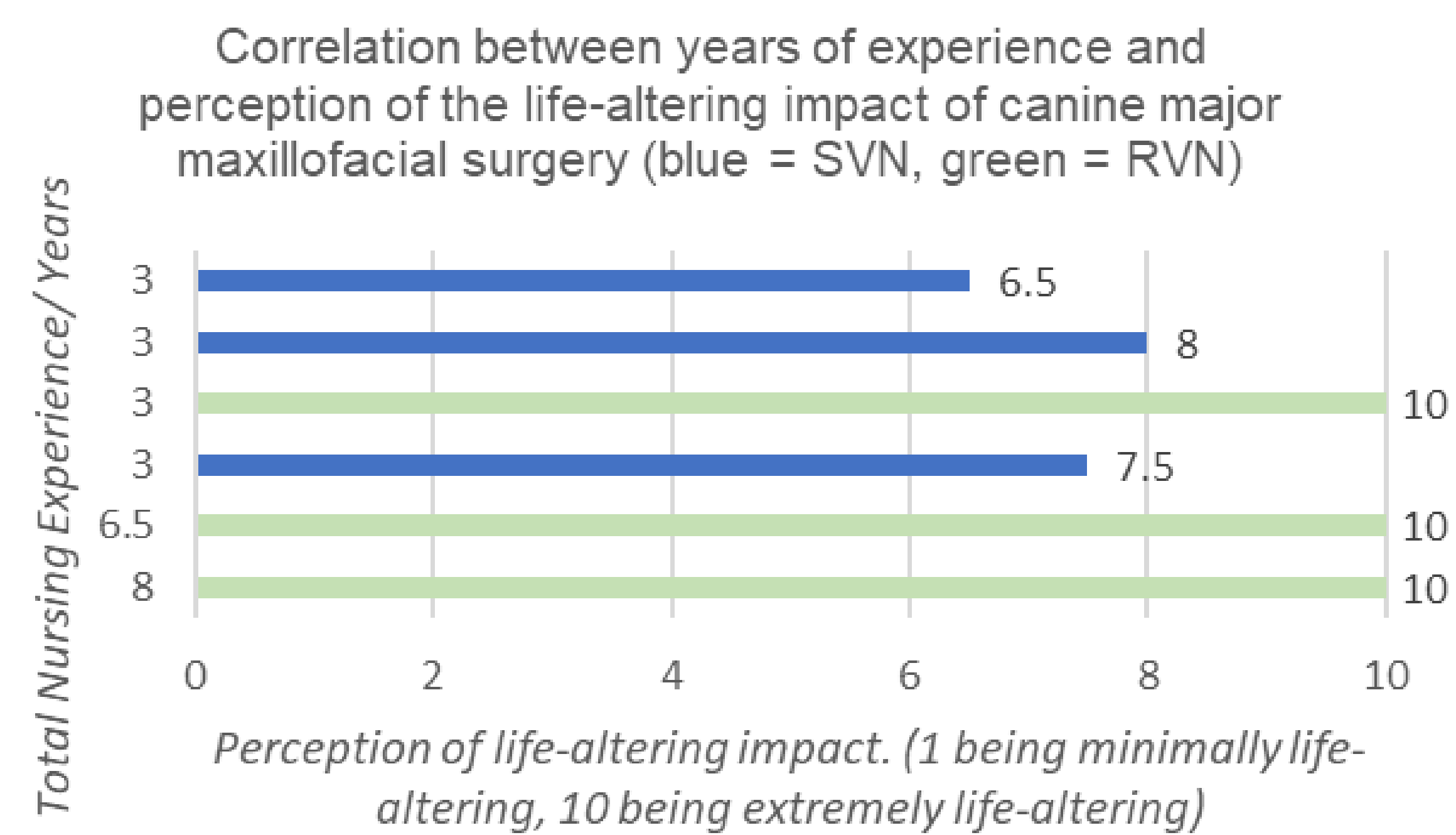
A total of seven semi-structured interviews were conducted over Microsoft Teams with a total of four Registered Veterinary Nurses and three student veterinary nurses (SVNs).

- Participants were obtained via self-selection and purposive sampling via participation advertisement on social media platforms. Those known to meet the inclusion criteria were approached to be recruited which may have created bias. Interviews were digitally recorded and transcribed with the Microsoft Teams transcription feature.
- Data was anonymised and transcripts were analysed in NVIVO for thematic analysis.

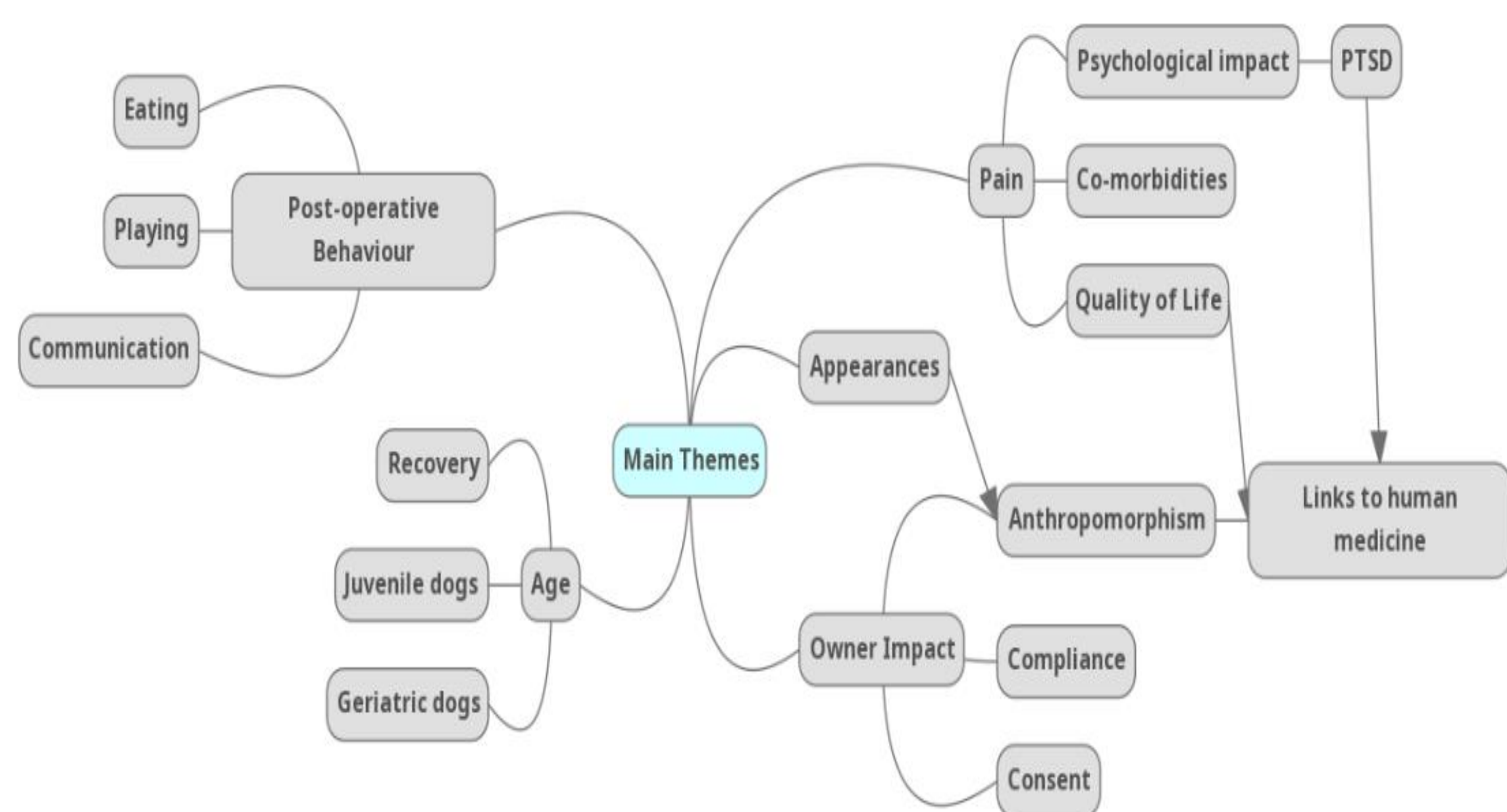
Results

Findings demonstrated that multiple factors influenced whether VNs deemed major maxillofacial surgery in dogs as ethical. Interview duration ranged from 24-58 minutes with a mean interview time of 36.6 minutes.

- The most significant finding was that all participants stated that MMS was unethical when performed on geriatric animals.
- Two participants deemed MMS as an unethical treatment choice irrespective of the patient's age.
- The study found a correlation between years of experience and how life-altering MMS was perceived to be.
- Participants who had seen more cases had a more negative view of the surgery, with the two most experienced participants perceiving MMS to be entirely unethical.
- Four participants who had seen healed MMS patients expressed neutral or positive statements regarding the long-term outcome.
- Five out of seven participants subconsciously adopted deontological principles for their reasoning behind whether they deemed MMS as ethical.
- Participants expressed that because animals cannot understand what is happening, it is not fair to do major procedures.
- Many participants made links to human medicine, which aligns with the idea that animal treatment is heavily influenced by anthropomorphism and anthropocentrism.
- All participants implied that the anthropomorphism of animals had negative effects on the owner's ability to make ethical decisions.



Clustered bar chart presenting the correlation between years of experience and perception of the life-altering impact of MMS.

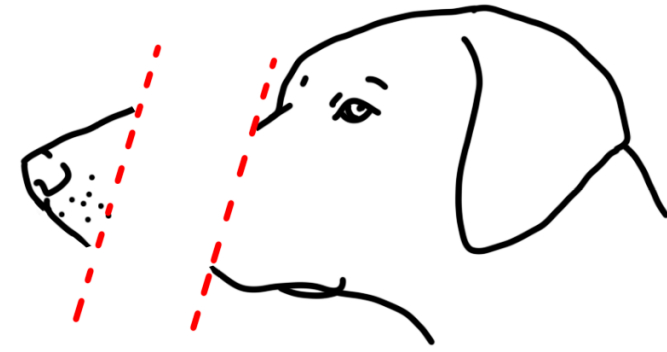


Mind map showing main themes from parent and child codes after transcript analysis in NVivo.

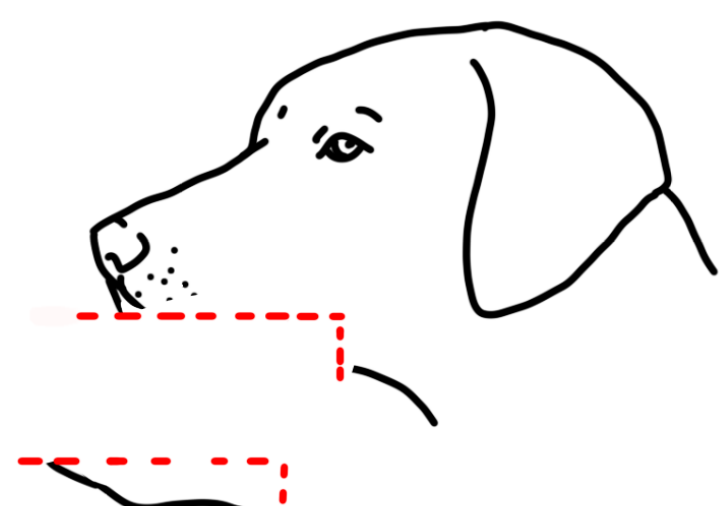
Radical bilateral rostral maxillectomy and mandibulectomy



Radical bilateral rostral maxillectomy



Bilateral rostral mandibulectomy



Diagrams showing portions of the maxillofacial composition that are routinely removed during major maxillofacial surgery, case dependent.

Discussion/Conclusion

Some participants used utilitarian principles to come to their own conclusions and implied that if the surgery was life saving for the patient it should be performed. The remaining participants used deontological principles to suggest that, although they recognise the possible positive and lifesaving qualities of the procedure, they were not prepared to justify the post-operative impacts of MMS if the animal's right to be pain free for the rest of their lives was suppressed.

From a VNs viewpoint, MMS may inhibit an animal's ability to complete activities that are fundamental to its well-being without difficulty or suffering, and is therefore deemed as unethical.

Factors such as **patient age** and **participant experience**, as well as **owner compliance**, influenced how ethical the VN perceived MMS to be. MMS was deemed unethical when performed on geriatric animals, who unfortunately account for the majority of those with oral neoplasms requiring curative intent surgery (Cray 2021). VNs stated that the presence of concurrent disease impacted whether they deemed MMS as ethical. Lascelles *et al.*'s 2004 study revealed that of six dogs that received MMS, three were euthanised roughly a year post-operatively, one due to osteoarthritis and the others due to metastatic disease.

The results indicate a need for further ethical understanding and perhaps a standardised protocol that considers all patient factors in order to increase animal welfare by optimising ethical decision making. Ultimately, these ethical decisions lie in the hands of animal owners, responsibility lies with veterinary professionals to advise and inform clients to encourage the formation of an ethical decision.

The study's sample size was small which could have impacted the reliability and credibility of the data collected, as well as the representation of the population. Participants had a range of experience which somewhat influenced levels of engagement, the researcher suggests data collected from VNs with similar levels of experience would provide more credible and valid results.

A future similar study including a greater sample size, VNs of similar experience levels, the inclusion of other veterinary professionals, and a balanced representation of gender, would be beneficial in understanding the perceived ethics of MMS and other major procedures.

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