



Assessment of Pet Owners' Knowledge on Cat Skin Diseases and Nutrition at Winadi Vet Clinic

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Abstract: This study aimed to assess the level of knowledge among pet owners regarding cat skin diseases, specifically scabies and ringworm, as well as the nutritional requirements for feline health, at Winadi Vet Clinic in Malang, East Java, Indonesia. Understanding pet owners' knowledge was crucial for ensuring the well-being of pets and fostering a healthier pet-owner relationship. The survey was conducted from July to August 2024. It was designed to evaluate three key areas: knowledge of scabies, ringworm, and nutritional feed for cats. Data were collected through a structured survey administered to 35 respondents who were regular visitors to the clinic. The assessment resulted in total scores of 91.14 for scabies, 85.71 for ringworm, and 86.57 for nutrition. These scores indicated a generally high level of awareness among the participants, with the highest score achieved in the understanding of scabies, suggesting it was the most familiar topic among pet owners. In conclusion, the study conducted at Winadi Vet Clinic sheds light on the positive knowledge levels of pet owners regarding cat skin diseases and nutrition in Malang. By enhancing pet owners' knowledge in these areas, the health and well-being of pets can be improved, strengthening the bond between the community and veterinary services.

Keywords: Feline nutrition; Pet owners' knowledge; Ringworm; Scabies

Introduction

Cats are among the most popular pets worldwide, cherished for their independent nature and ability to provide emotional comfort to their owners. In Indonesia, cats are frequently kept as pets, and their health is a primary concern for their caretakers. Common health issues affecting cats include skin diseases such as scabies and ringworm, which not only cause discomfort for the animals but also pose a risk of transmission to other animals and humans (Tyler et al., 2018; Cooper et al., 2020; Siak & Burrows, 2013). Moreover, ensuring proper nutrition is essential for maintaining the overall health and immune function of cats, preventing various diseases, and ensuring a good quality of life (Vinassa et

al., 2020; Laflamme et al., 2008; Baldwin et al., 2010; Harper et al., 2001).

The knowledge of pet owners regarding skin diseases and nutritional needs is crucial for effective health management. Previous studies have shown that pet owners with adequate knowledge tend to identify and address health issues in their pets more promptly, reducing the risk of complications and disease spread (Downes et al., 2017; Ellen & Reinhold, 2006; Arena et al., 2021; Naville, 2004; Gazzano et al., 2015; Udell et al., 2023; Rollins & Marphy, 2019; Laflamme, 2005; Sadek et al., 2018). However, gaps in knowledge among pet owners can hinder their ability to care for cats effectively, impacting the overall well-being of the animals.

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This study aims to evaluate the level of knowledge among pet owners at Winadi Vet Clinic in Malang regarding cat skin diseases, specifically scabies and ringworm, and their understanding of the nutritional requirements for feline health. By understanding the current knowledge levels, the research seeks to identify areas needing improvement through continuous education and awareness programs. Such efforts are vital for enhancing the health and well-being of cats and strengthening the relationship between pet owners and veterinary services.

Method

The data collection method for the study conducted at Winadi Vet Clinic in Malang from July to August 2024 employed a descriptive survey approach. This involved distributing a structured questionnaire to 35 respondents who were regular visitors to the clinic. The sampling was based on convenience sampling, ensuring a diverse range of pet owners with varying levels of experience and exposure to feline health issues. The survey consisted of 30 multiple-choice questions designed to evaluate respondents' knowledge across three main areas: scabies, ringworm, and nutritional feed for cats.

The questionnaire was divided into three sections, each containing 10 questions. The first section focused on assessing basic knowledge about scabies, including symptoms, transmission, and prevention measures. The second section explored the respondents' understanding of ringworm, covering identification, treatment, and control strategies. The third section evaluated knowledge about nutritional requirements for cats, emphasizing essential dietary needs and feeding practices. Each question was crafted with varying levels of difficulty, ranging from easy to difficult, to gauge the depth and breadth of the respondents' knowledge.

Result and Discussion

Respondent Characteristics

The demographic distribution of respondents in the study reveals interesting patterns. The characteristics of respondents are presented in Table 1. The majority of respondents were female (71%), which is consistent with previous studies indicating a higher representation of women among pet owners (Forrest, 2023). This gender distribution aligns with the notion that women are often more involved in pet care responsibilities and decision-making processes related to their pets' health and well-being (Naughton et al., 2022; Heuberger & Wakshlag, 2011; Hobi et al., 2011).

Table 1. Respondent Characteristics

Respondent Characteristics	Total Respondents	Percentage (n=35)
Sex		
Male	10	29%
Female	25	71%
Age		
Young Adults (16-29 years)	23	66%
Middle-Aged Adults (30-49 years)	9	26%
Older Adults (50+ years)	3	9%
Level Education		
Basic Education	1	3%
Secondary Education	12	34%
Higher Education	22	63%

Regarding age groups, the study shows that a significant proportion of respondents belonged to the young adult category (66%), followed by middle-aged adults (26%) and older adults (9%). This distribution may suggest a higher interest or engagement in pet ownership among younger individuals, potentially influenced by factors such as lifestyle preferences, companionship needs, or cultural influences. The lower representation of older adults in the study could be attributed to various factors, including different priorities, life stages, or possibly a lower prevalence of pet ownership in this age group.

Furthermore, the educational background of the respondents indicates that a majority had higher education (63%), followed by secondary education (34%) and basic education (3%). This distribution implies that individuals with higher educational attainment may be more inclined to seek information and engage in activities related to pet care and health. Higher education levels could also impact decision-making processes regarding pet welfare, treatment options, and preventive measures (Grigg & Kogan, 2019; Croney & Millman, 2007; Amat et al., 2015; Stella & Croney, 2016; Neville, 2004).

Level of Knowledge among Pet Owners on Cat Skin Diseases and Nutrition

Scabies and ringworm are common skin diseases in cats, each with distinct characteristics and implications for pet health. Scabies, caused by mites, leads to severe itching and skin irritation, which can result in secondary infections if left untreated. Ringworm, a fungal infection, presents as circular patches of hair loss and can be transmitted to humans and other animals, making it a significant zoonotic concern. Nutrition, on the other hand, is fundamental for the overall health and well-being of cats. Proper nutrition helps prevent various health issues, supports immune function, and ensures optimal growth and development (Huang & Lien, 2013; Szczepanik et al., 2024; Malik et al., 2016; Colombo et al.,

2023; Curtis, 2004; Nwufoh et al., 2021; Rampton et al., 2013).

Understanding these conditions is crucial for pet owners to provide appropriate care and seek timely veterinary intervention. Knowledge about scabies and ringworm can help in early detection and treatment, reducing the risk of complications and transmission. Awareness of nutritional needs allows pet owners to make informed decisions about their pets' diets, promoting long-term health and preventing diet-related issues.

The boxplot in Figure 1 illustrates the distribution of knowledge scores among pet owners for scabies, ringworm, and nutrition. The median scores for all three categories are relatively high, with scabies having the highest consistency in knowledge levels. Scabies shows a tight interquartile range (IQR) from 80 to 100, indicating that most respondents have a strong understanding of this condition. Ringworm, while also having a high median, exhibits a broader IQR and a lower minimum score, suggesting more variability in respondents' knowledge. Nutrition scores are similarly varied, with a wider spread between the lower and upper quartiles, indicating differing levels of awareness and understanding among pet owners.

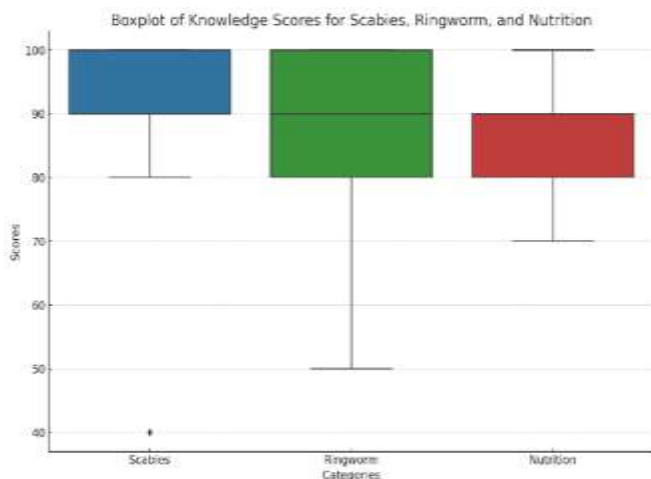


Figure 1. Boxplot of knowledge scores for scabies, ringworm and nutrition

These findings reveal varying levels of awareness among pet owners, with average knowledge scores (Figure 2) of 91.14 for scabies, 85.71 for ringworm, and 86.57 for nutrition. The research indicates that conditions like scabies, which are more visible and symptomatic, tend to garner more attention and comprehension from pet owners. Conversely, less visible conditions such as ringworm and nutritional issues necessitate focused educational efforts to enhance awareness and knowledge levels among pet owners (Tyler et al., 2018; Bond et al., 2005; Malik, 2012; Walton et al., 2004). There

is a need for additional education in areas where knowledge is slightly lower, such as ringworm and nutrition. Enhancing understanding in these areas could result in better prevention and management of skin diseases, ultimately leading to improved overall health for cats.

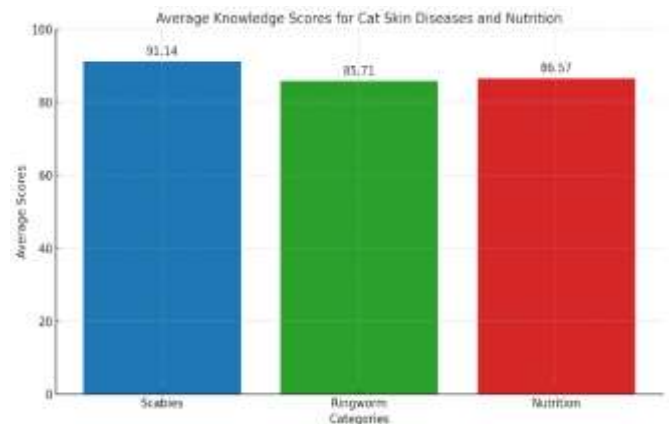


Figure 2. Average knowledge score for cat skin diseases and nutrition

Scabies had a distinct presentation, so pet owners and veterinarians were likely to have had a better understanding of the condition, which had visible and easily recognizable symptoms. The observable signs of scabies encouraged pet owners to seek information and take appropriate action when necessary, which improved their comprehension and capacity to effectively manage the condition. This was consistent with the notion that disorders exhibiting distinct symptomatology were given greater attention and were easier for those providing pet care to understand (Lopez, et al., 2024; Boissy et al., 2007; Barcelos et al., 2023).

However, diseases like ringworm and nutritional deficiencies that might not have shown symptoms right away or might have shown symptoms more subtly did not seem to raise the same level of awareness. For example, ringworm could frequently be misdiagnosed as other skin conditions or remain asymptomatic for a while, delaying diagnosis and treatment. Similarly, nutritional problems might not have become apparent until they worsened, making it challenging for pet owners to recognize and treat them at an early stage (Saleem, 2020; Yuliansyah et al., 2024; Cafarchia et al., 2006; Chupia et al., 2022; Jarjees & Issa, 2022).

The discrepancy in knowledge levels suggested a more serious problem with the way pet health-related information and education were distributed. Even though pet owners might have known a lot about the more obvious conditions, there was a need for more education in areas where there was a knowledge gap. This was especially important in the case of nutritional health and ringworm, where increased knowledge

might have resulted in better preventative and treatment methods. Pet owners would have been better able to spot possible problems early on, seek prompt veterinary care, and put appropriate preventive measures in place if they had increased awareness and knowledge in these areas.

Conclusion

This study at Winadi Vet Clinic revealed that pet owners in Malang had good knowledge of cat skin diseases and nutrition. Scabies received more attention due to its visibility, while ringworm and nutritional issues required further education. Enhancing knowledge in these areas could improve pet health and strengthen the community's connection with veterinary services.

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Author Contributions

Conceptualization and methodology, I.A.A.; formal analysis, P.A.I.Z., A.F.Q.S., and D.S.A.; resources, W.S.; writing—original draft preparation and review and editing, I.A.A. All authors have read and agreed to the published version of the manuscript.

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Conflicts of Interest

The authors declare no conflict of interest.

References

- Amat, M., Camps, T., & Manteca, X. (2015). Strees in Owned Cats: Behavioral Changes and Welfare Implications. *Jurnal of Filene Medicine and Surgery*, 12(1), 91-118. <https://doi.org/10.1177/1098612X15590867>
- Arena, L., Menchetti, L., Deverio, S., Guardini, G., Gazzano, A., & Mariti, C. (2021). Overwight in Domestic Cats Livingin Urban Areasof Italy Risk Factors for an Emerging Walfare Issue. *Animals*, 11(8), 2246. <https://doi.org/10.3390/ani11082246>
- Baldwin, K., Bartges, J., Buffington, T., Lisa, M., Freeman, F., Grabow, M., & Legred, J. (2010). AAHA Nutritional Assessment Guidelines for Dogs and Cats. *Journal of the American Animal Hospital Association*, 46(4), 285-296. <https://doi.org/10.5326/0460285>
- Barcelos, A. M., Kargas, N., Maltby, J., & Mills, D. S. (2023). Potential Psychosocial Explanations for the Impact of pet Ownership on Human Well-Being: Evaluating and Expanding Current Hypotheses. *Human Animal Interact*, 23(8). <https://doi.org/10.1079/hai.2023.0008>
- Bond, R., Riddle, A., Mottram, L., Beugnet, F., & Stevenson, R. (2007). Survey of Flea Infetation in Dogs and Cats in the United Kingdom During 2005. *National Library of Medicine*, 160(15). <https://doi.org/10.1136/vr.160.15.503>
- Boissy, A., Manteuffel, G., Jensen, M. B., Moe, R. O., Spruijt, B., Keeling, L. J., Winckler, C., Forman, B., Dimitrov, I., Langbein, J., Bakken, M., Veisier, I., & Aubert, A. (2007). Assesment of Postive Emotions in Animals to Improve Their Welfare. *Journal Elsavier Physiology and Behavior*, 92(3), 375-397. <https://doi.org/10.1016/j.physbeh.2007.02.003>
- Cafarchia, C., Capelli, D. R. G., Guillot, J., & Otranto, D. (2006). Isolation of Microsporum Canis From the Hair Coat of Pet Dogs and Cats Belonging to Owners Diagnosed With M. Canis Tinea Corporis. *Veterinary Dermatology*, 17(5), 327-331. <https://doi.org/10.1111/j.1365-3164.2006.00533>
- Chupia, V., Ninsuwon, J., Piyaungsri, K., Sodarath, C., Prachasilchai, W., Suriyasathaporn, W., & Pikulkaew, S. (2022). Prevalence of Microporum Canis from Per Cats in Small Animal Hospitals, ChiangMai, Thailand. *Veterinary Sciences*, 9(21), 1-8. <https://doi.org/10.3390/vetsci9010021>
- Colombo, M., Morelli, S., Sacra, M., Trezza, G., Paoletti, B., Traversa, D., & Di Cesare, A. (2023). An uncommon and severe clinical case of Sarcoptes scabiei infestation in a cat. *Pathogens*, 12(1). <https://doi.org/10.3390/pathogens12010062>
- Cooper, A. R., Nixon, E. M. I. L. Y., Rose Vineer, H., Abdullah, S., Newbury, H. A. N. N. A. H., & Wall, R. I. C. H. A. R. D. (2020). Fleas infesting cats and dogs in Great Britain: spatial distribution of infestation risk and its relation to treatment. *Medical and Veterinary Entomology*, 34(4), 452-458. <https://doi.org/10.1111/mve.12462>
- Cronley, C. C., & Millman, S. T. (2007). Board-Invited Review: the Ethical and Behavioral Bases for Farm Animal Welfare Legislation. *American Society of Animal Science*, 85(2), 556-565. <https://doi.org/10.2527/jas.2006-422>
- Curtis, C. F. (2004). Current trends in the treatment of Sarcoptes, Cheyletiella and Otodectes mite infestations in dogs and cats. *Veterinary Dermatology*, 5(2), 108-114. <https://doi.org/10.1111/J.1365-3164.2004.00362.X>

- Downes, M., Devitt, C., Downes, M. T., & More, S. J. (2017). Understanding the Context for Pet Cat and Dog Feeding and Exercising Behaviour Among Pet Owners in Ireland: a Qualitative Study. *Irish Veterinary Journal*, 70(1). <https://doi.org/10.1186/s13620-017-0107-8>
- Ellen, K., & Reinhold, B. (2006). Human-Animal Relationship of Owners of Normal and Oberweight Cats. *The Journal of Nutrition*, 136(7). <https://doi.org/10.1093/jn/136.7.1947S>
- Forrest, R., Pearson, M., & Awawdeh, L. (2023). Pet Owners' Attitudes and Opinions Towards Cat and Dog Care Practices in Aotearoa New Zealand. *Veterinary Sciences*, 10(10), 606. <https://doi.org/10.3390/vetsci10100606>
- Grigg, E. K., & Kogan, L. R. (2019). Owners' Attitudes, Knowledge, and Care Practices: Exploring the Implications for Domestic Cat Behavior and Welfare in the Home. *Animals*, 9(11), 978. <https://doi.org/10.3390/ani9110978>
- Gazzano, A., Bianchi, L., Campa, S., & Mariti, C. (2015). the Prevention of Undesirable Behaviors in Cats: Effectiveness of Veterinary Behaviorists Advice Given to Kitten Owners. *Journal of Veterinary Behavior*, 10(6). <https://doi.org/10.1016/j.jveb.2015.07.042>
- Harper, E. J., Stack, D. M., Watson, T. D. G., & Moxham, G. (2001). Effects of Feeding Regimens on Bodyweight, Composition and Condition Score in Cats Following Ovariohysterectomy. *Journal of Small Animal Practice*, 42(9), 433-438. <https://doi.org/10.1111/j.1748-5827.2001.tb02496.x>
- Heuberger, R., & Wakshlag, J. (2011). Characteristics of Ageing Pets and Their Owners: Dogs V. Cats. *The British Journal of Nutrition*, 106(1). <https://doi.org/10.1017/S0007114511003321>
- Huang, H., & Lien, Y. (2013). Feline sarcoptic Mange in Taiwan: a case Series of Five Cats. *Veterinary Dermatology*, 24(4). <https://doi.org/10.1111/vde.12049>
- Hobi, S., Linek, M., Marignac, G., Olivry, T., Beco, L., Nett, C., Fontaine, J., Roosje, P., Bergcall, K., Belova, S., Koebrich, S., Pin, D., Kovalik, M., Meury, S., Wilhelm, S., & Favrot, C. (2011). Clinical Characteristics and Causes of Pruritus in Cats: a Multicentre Study on Feline Hypersensitivity-Associated Dermatoses. *National Library of Medicine*, 22(5). <https://doi.org/10.1111/j.1365-3164.2011.00962.x>
- Jarjees, K. I., & Issa, N. A. (2022). First Study on Molecular in Epidemiology of Dermatophytosis in Cats, Dogs, and Their Companions in the Kurdistan Religion of Iraq. *Veterinary World*, 15(12), 2971-2978. <https://doi.org/10.14202/vetworld.2022.2971-2978>
- Laflamme, D. P., Abood, S. K., Fascetti, A. J., Fleeman, L. M., Freeman, L. M., Michel, K. E., & Willoughby, K. N. (2008). Pet feeding practices of dog and cat owners in the United States and Australia. *Journal of the American Veterinary Medical Association*, 232(5), 687-694. <https://doi.org/10.2460/javma.232.5.687>
- Laflamme, D. P. (2005). Nutrition for aging cats and dogs and the importance of body condition. *Veterinary Clinics: Small Animal Practice*, 35(3), 713-742. <https://doi.org/10.1016/j.cvsm.2004.12.011>
- Lopes, L. F. D., Lopes, E. G., Lima, M. P., Lopes, F. G., Pegoraro, D., Saragozo, R. D. A., & Dos Santos, J. V. (2024). Assessment and validation of the pet-owner relationship scale for Brazil. *Frontiers in Psychology*, 15, 1412451. <https://doi.org/10.3389/fpsyg.2024.1412451>
- Malik, R., Stewart, K. M., Sousa, C. A., Krockenberger, M. B., Pope, S., Ihrke, P., Beatty, J., Barrs V. R. D., & Walton, S. (2016). Crusted Scabies (Sarcoptic Mange) in Four Cats Due to *Sarcoptes Scabiei* Infestation. *Journal of Feline Medicine and Surgery*, 8(5), 327-339. <https://doi.org/10.1016/j.jfms.2006.05.005>
- Malik, R. (2012). Cats, FOXes and Scabies: the Epidemiological Puzzle of Sarcoptic Mange. *The Veterinary Record*, 171(14), 346-347. <https://doi.org/10.1136/vr.e6591>
- Naughton, V., Grzelak, T., Mulhern, M. S., Moffett, R. C., & Naughton, P. (2022). Association Between Socio-Demographic Factors and Owners' Beliefs and Attitudes to Pet Cats Fundamental Dietary and Physical Exercise Needs, in City of Belfast. *Animals*, 12(19), 2645. <https://doi.org/10.3390/ani12192645>
- Neville, P. F. (2004). an Ethical Viewpoint: the Role of Veterinarians and Behaviorist in Ensuring Good Husbandry for Cats. *Journal of Feline Medicine & Surgery*, 6(1), 43-48. <https://doi.org/10.1016/j.jfms.2003.09.012>
- Nwufoh, O. C., Sadiq, N. A., Fagbohun, O., Adebisi, A., Adeshina, R., Emmanuel, E., & Emikpe, B. O. (2021). Molecular Detection and Characterization of *Sarcoptes Scabiei* Var *Canis* Using Skin Scrapings and Skin Biopsies. *Journal of Parasitic Diseases*, 45(1), 258-262. <https://doi.org/10.1007/s12639-020-01304-7>
- Rampton, M., Walton, S. F., Holt, D. C., Pasay, C., Kelly, A., Currie, B. J., McCarthy, J. S., & Mounsey, K. E. (2013). Antibody Responses to *Sarcoptes Scabiei* Apolipoprotein in a Porcine Model: Relevance to Immunodiagnosis of Recent Infection. *PLoS ONE*,

- 8(6), e65354.
<https://doi.org/10.1371/journal.pone.0065354>
- Rollins, A. W., & Murphy, M. (2019). Nutritional Assessment in the Cat: Practical Recommendations for Better Medical Care. *Journal of Feline Medicine and Surgery*, 21(5), 442-448.
<https://doi.org/10.1177/1098612X19843213>
- Sadek, T., Hamper, B., Rodan, I., Rowe, E., Sundahl, E., & Horwitz, D. (2018). Feline Feeding Programs: Addressing Behavioral Needs to Improve Feline Health and Wellbeing. *Journal of Feline Medicine and Surgery*, 20(11), 1049-1055.
<https://doi.org/10.1177/1098612X18791877>
- Saleem, M. I. (2020). Prevalence of Dermatophytosis and Efficacy of Antifungal Agents Against *Microsporum Canis* in Cats. *Pure and Applied Biology*, 9(1).
<https://doi.org/10.19045/bspab.2020.90015>
- Siak, M., & Burrows, M. (2013). Flea control in cats: new concepts and the current armoury. *Journal of Feline Medicine and Surgery*, 15(1), 31-40.
<https://doi.org/10.98612X12470341>
- Stella, J. L., & Croney, C. C. (2016). Environmental aspects of domestic cat care and management: implications for cat welfare. *The Scientific World Journal*, 2016(1), 6296315.
<https://doi.org/10.1155/2016/6296315>
- Szczepanik, M., Wilkolek, P., Kalisz, G., & Szczepanik, K. (2024). Feline Sarcoptic Mange in Poland: a Case Series of Three Cats. *National Library of Medicine*, 10(4). <https://doi.org/10.1002/vms3.1500>
- Tyler, S., Roberts, C., Foster, A. P., Barnard, N., & Murray, J. (2018). Owner-reported Flea Treatment Measures and Skin Disease in Cats. *Journal of Feline Medicine and Surgery*, 21(4), 282-285.
<https://doi.org/10.1177/1098612x18773911>
- Udell, M., Delgado, M., Ekenstedt, K., Shoveller, A. K., & Croney, C. (2023). Catastrophic Myths Part 2: Common Misconceptions About the Environmental, Nutritional, and Genetic Management of Domestic Cats and Their Welfare Implications. *National Library of Medicine*, 300.
<https://doi.org/10.1016/j.tvjl.2023.106029>
- Vinassa, M., Vergnano, D., Valle, E., Giribaldi, M., Nery, J., Prola, L., & Schiavone, A. (2020). Profiling Italian Cat and Dog Owners' Perceptions of Pet Food Quality Traits. *BMC Veterinary Research*, 16(1).
<https://doi.org/10.1186/s12917-020-02357-9>
- Walton, S. F., Holt, D. C., Currie, B. J., & Kemp, D. J. (2004). Scabies: New Future for a Neglected Disease. *Advances in Parasitology*, 57, 309-376.
[https://doi.org/10.1016/S0065-308X\(04\)57005-7](https://doi.org/10.1016/S0065-308X(04)57005-7)
- Yuliansyah, N., Zamzami, R. S., Ferdian, R., Daud, R., & Hamzah, A. (2024). Prevalence of Dermatophytosis in Cats at Alfa Animal Clinic Banda Aceh. *The International Journal of Tropical Ceterinary and Biomedical Research*, 9(1).
<https://doi.org/10.21157/ijtvbr.v9i1.40261>