## Exploring Symptoms, Causes and Treatments of Feline Pruritus Using Thematic Analysis of Pet Owner Social Media Posts

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Abstract: Social media sources (50) were identified, keywords defined by veterinarians and organised into 6 topics known to be indicative of feline pruritus: body areas, behaviors, symptoms, diagnosis, and treatments. These were augmented using academic literature, a cat owner survey, synonyms, and Google Trends. The content was collected using a social intelligence solution, with keywords tagged and filtered. Data were aggregated and de-duplicated. SL content matching body areas, behaviors and symptoms were reviewed manually, and posts were marked relevant if: posted by a pet owner, identifying an itchy cat and not duplicated. A sub-set of 493 posts published from 2009-2022 was used for reflexive thematic analysis in NVIVO (Burlington, MA) to identify themes. Five themes were identified: allergy, pruritus, additional behaviors, unusual or undesirable behaviors, diagnosis, and treatment. Most (258) posts reported the cat was excessively licking, itching, and scratching. The majority were indoor cats and were less playful and friendly when itchy. Half of these posts did not indicate a known cause of pruritus. Bald spots and scabs (123) were reported, often causing swelling and fur loss, and 56 reported bumps, lumps, and dry patches. Other impacts on the cat's quality of life were ear mites, cat self-trauma and stress. Seven posts reported their cats' symptoms caused them ongoing anxiety and depression. Cats with food allergies to poultry (often chicken and beef) causing bald spots featured in 23 posts. Veterinarians advised switching to a raw food diet and/or changing their bowls. Some cats got worse after switching, leaving owners' needs unmet. Allergic reactions to flea bites causing excessive itching, red spots, scabs, and fur loss were reported in 13 posts. Some (3) posts indicated allergic reactions to medication. Cats with seasonal and skin allergies, causing sneezing, scratching, headshaking, watery eyes, and nasal discharge, were reported 17 times. Eighty-five posts identified additional behaviors. Of these, 13 reported their cat's burst pimple or insect bite. Common behaviors were headshaking, rubbing, pawing at their ears, and aggressively chewing. In some cases, bites or pimples triggered previously unseen itchiness, making the cat irritable. Twenty-four reported their cat had anxiety: overgrooming, itching, losing fur, hiding, freaking out, breathing quickly, sleeplessness, hissing and vocalising. Most reported these cats as having itchy skin, fleas, and bumps. Cats were commonly diagnosed with an ear infection, ringworm, acne, or kidney disease. Acne was diagnosed in cats with an allergy flare-up or overgrooming. Ear infections were diagnosed in itchy cats with mites or other parasites. Of the treatments mentioned, steroids were most frequently used, then anti-parasitics, including flea treatments and oral medication (steroids, antibiotics). Forty-six posts reported distress following poor outcomes after medication or additional vet consultations. SL provides veterinarians with unique insights. Verbatim comments highlight the detrimental effects of pruritus on pets and owner quality of life. This study demonstrates the need for veterinarians to communicate management and treatment options more effectively to relieve owner frustrations. Data analysis could be scaled up using machine learning for topic modeling.

Keywords: content analysis, feline, itch, pruritus, social media, thematic analysis, veterinary dermatology

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