

## Comparative Analysis of Pet-parent Reported Pruritic Symptoms in Cats: Data from Social Media Listening and Surveys Similar

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**Abstract :** Estimating population-level burden, abilities of pet-parents to identify disease and demand for veterinary services worldwide is challenging. The purpose of this study is to compare a feline pruritus survey with social media listening (SML) data discussing this condition. Surveys are expensive and labour intensive to analyse, but SML data is freeform and requires careful filtering for relevancy. This study considers data from a survey of owner-observed symptoms of 156 pruritic cats conducted using Pet Parade® and SML posts collected through web-scraping to gain insights into the characterisation and management of feline pruritus. SML posts meeting a feline body area, behaviour and symptom were captured and reviewed for relevance representing 1299 public posts collected from 2021 to 2023. The survey involved 1067 pet-parents who reported on pruritic symptoms in their cats. Among the observed cats, approximately 18.37% (n=196) exhibited at least one symptom. The most frequently reported symptoms were hair loss (9.2%), bald spots (7.3%) and infection, crusting, scaling, redness, scabbing, scaling, or bumpy skin (8.2%). Notably, bald spots were the primary symptom reported for short-haired cats, while other symptoms were more prevalent in medium and long-haired cats. Affected body areas, according to pet-parents, were primarily the head, face, chin, neck (27%), and the top of the body, along the spine (22%). 35% of all cats displayed excessive behaviours consistent with pruritic skin disease. Interestingly, 27% of these cats were perceived as non-symptomatic by their owners, suggesting an under-identification of itch-related signs. Furthermore, a significant proportion of symptomatic cats did not receive any skin disease medication, whether prescribed or over the counter (n=41). These findings indicate a higher incidence of pruritic skin disease in cats than recognized by pet owners, potentially leading to a lack of medical intervention for clinically symptomatic cases. The comparison between the survey and social media listening data revealed bald spots were reported in similar proportions in both datasets (25% in the survey and 28% in SML). Infection, crusting, scaling, redness, scabbing, scaling, or bumpy skin accounted for 31% of symptoms in the survey, whereas it represented 53% of relevant SML posts (excluding bumpy skin). Abnormal licking or chewing behaviours were mentioned by pet-parents in 40% of SML posts compared to 38% in the survey. The consistency in the findings of these two disparate data sources, including a complete overlap in affected body areas for the top 80% of social media listening posts, indicates minimal biases in each method, as significant biases would likely yield divergent results. Therefore, the strong agreement across pruritic symptoms, affected body areas, and reported behaviours enhances our confidence in the reliability of the findings. Moreover, the small differences identified between the datasets underscore the valuable insights that arise from utilising multiple data sources. These variations provide additional depth in characterising and managing feline pruritus, allowing for more comprehensive understanding of the condition. By combining survey data and social media listening, researchers can obtain a nuanced perspective and capture a wider range of experiences and perspectives, supporting informed decision-making in veterinary practice.

**Keywords :** social media listening, feline pruritus, surveys, felines, cats, pet owners

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