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PREVALENCE OF CLINICAL CASES OF CATS PRESENTED AT VETERINARY CLINICS IN ABUJA MUNCIPAL AREA COUNCIL (AMAC) IN FCT, ABUJA NIGERIA

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ABSTRACT

The study investigated the prevalence of clinical conditions in cats presented to the two selected Veterinary clinics in Abuja Municipal Area Council (AMAC) from July to November 2023. A total of 591 Cases of pet species were presented to the two selected clinics of which 366/591 (61.93%) were dogs, 209/591(35.36) Cats, 12/591(2.03%) Birds, 2/591(0.34%) Rabbits and 2/591(0.34%) Tortoise. The most occurring clinical Condition in cats were Helminthosis (7.66%)/209 followed by open wound 9/209 (4.31%). October period has the highest number of cases 72/209(34.35%) followed by September 52/209(24.88%) while the month with lowest cat cases was November 23/209(11.00%). The mostly presented breed was Domestic short hair with frequency of 134/209(64.11%) followed by Persian 47/209(22.49%). female were more presented to the selected clinics111/209 (53.11%) than males 98/209 (46.89%), and junior cats aged 7 months to 2 years were mostly presented with the highest frequency of 93/209(44.50%) followed by kittens 46/209(22.01%). Cats with full confinement has the highest frequency 133/209(63.64%) followed by partial confinement 71/209(33.97) while the lowest is non-confinement 5/209(2.39%). Requests for routine check and vaccination were the major reasons cat owners present their cats to the Veterinary clinics, with a frequency of 71/209(33.97%). Keeping in view these finding, an appropriate prevention and control strategies could be designed and applied against various disease condition in cat in the study area.

Keywords: AMAC; Cat; Diagnoses; Diseases; Primary complaints

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INTRODUCTION

Abuja is a fast-growing city experiencing rapid urbanization and development. As Nigeria's capital city, it is inherently government-centric and multicultural, comprising various ethnic groups and nationalities [1]. Pets, especially dogs and cats, play crucial roles in society. Cats are vital companions for many families, contributing to the physical, social, and mental development of children and the well-being of their owners [2]. Pet ownership has numerous benefits, including reduced doctor visits, medication use, and improved blood pressure and cholesterol levels [3]. Cats provide companionship to owners and family members [4] and perceived improved mental and physical health benefits [5].

Seeing cats presented to one of the selected Veterinary clinics for this study during student outpost clinics prompted the author to design a study that will document the reasons cat owners seek veterinary care and also the clinical conditions observed in those cats. Cats, like other animals, are prone to various ailments. Documenting these conditions over a period helps veterinarians understand and manage diseases more effectively, enabling them to prioritize services, educate cat owners, and enhance student learning.

There is a paucity of information on why cat owners seek veterinary care or why cat visits veterinary clinics. The available information on diseases of cats in Abuja is scanty, old and mainly based on retrospective studies and focused on specific disease conditions (ref?). Documenting these findings will improve teaching and learning experiences for teachers and students, respectively.

Effective disease investigation, recording, and reporting are essential in controlling animal diseases worldwide [6, 7]. There is paucity of information on why cat owners in Abuja seek veterinary care. Hence this study aims to document reasons why cats are presented to the veterinary clinic and clinical conditions observed in cats presented to selected veterinary clinics in Abuja Municipal Area Council (AMAC), Federal Capital Territory (FCT), Nigeria.

MATERIAL AND METHODS

Study Area

This study was carried out in two selected veterinary clinics in AMAC, FCT, Nigeria.

Study Population

The study population included all the animals presented to the two selected veterinary clinics in AMAC from July to November 2023. For all the cases presented during the study period, the number of all animal species were noted however, detailed information were only recorded about cats.

Data Collection

A purposive sampling based on population of clinical cases and location of the veterinary clinics was used for the selection of the veterinary clinics for the study. Consent letters were written to the selected two Clinics to seek their permission to carry out this study in their clinics and they consented. Questionnaires were designed with the following information; demography, and purpose of keeping cats, the cat's age, sex, breed, chief complaint, and confinement while the diagnoses was got from the clinicians attending to the cats The clinics were visited every weekly during the study period

Statistical analysis

Data were collected and recorded in Microsoft Excel 2022® spread sheet. Descriptive statistical analysis was conducted using frequency distributions and percentages. Results were presented in figures and tables

RESULT

The primary purpose for keeping all the cats presented to the two selected clinics was as pets.

Out of the selected animal species presented to the clinics within the study periods, dogs constituted the largest number of 366/591 (61.93%), cats 209/591(35.36%) and birds 12/ 591(2.03%). Rabbits and tortoise constituted only 2/591(0.34%) each. (**Figure**1).

The demography of the cats presented showed that 111/209(53.11%) were males while 98/209 (46.89%) were females. In addition kitten of 0-6 months constituted 46/209 (22.1%), junior aged 7months to 2 years were 93/209 (44.50%), adults of 3-6 years were 35/209 (16.75%), 7-10 years were 17/209(8.13%) and senior (old cats) of 11-14 years were 6/209 (2.87%). Those of which their ages were unknown constituted of 12/209(5.4) (Table 1). The distribution of breed of cats presented within the study periods indicated that out of 16 breeds presented for clinical attention, domestic shorthair has the highest number totalling 134/209 (64.11%) followed by Persian 47/209 (22.49%), then Persian cross 6/209 (2.87%). DHS cross, British short hair and Maine Coon had frequencies of 3/209(1.44%) each while Chinchilla, Scottish and Turkish Angola had frequencies of 2/209 (0.96%) each while other observe seven breeds had frequencies of 1/209(0.48%) each (**Table 1).**

Also, 133/209 (63.64%) cats presented were managed in full confinement in their owner's homes, 71/209 (33.97%) in partial confinement while 5/209 (2.39%) were not confined. Further, 160/209 (76.56 %) of the cats were presented to the clinics by their owners while 49/209 (23.44%) were presented by other peoples such as owners' friends, guides, children etc. (Table 2). The monthly distribution of the cats presented to the clinics within the study periods showed that July, August and September recorded presentation of cats totalling 26/209 (12.44%), 36/209 (17.22%) and 52/209(24.88%) respectively. October recorded 72/209 (34.45) of the total cats presented while November recorded 23/209 (11.00%) (Table 2)

The clients made various complaint and requests on presentation of these cats to the clinics among which were routine check and vaccination 71/209 (33.97%), GIT 28/208 (13.40), and aesthetic procedures 27/209 (**12.92**%) Others are neuter 14/209 (6.70),limping 11/209 (5.26),open wound 9/209(4.31), boarding 8/209(3.83), ear scratching, ocular symptom, and registration were 6/209 (2.87) each, URT 3/209 (1.44),while UT, pregnancy test, skin symptoms, difficult birth, rabies titre serology and routine screening had frequency of 2/209 (0.96) each. Salivation, reddish anus, micro chipping and flea infestation had frequency of 1/209 (0.48%) each. (Table 3).

The clients seeking routine check and vaccination had specific requests: 31/71 (43.66%) requested deworming alone, 11/71 (15.49%) requested vaccination alone, and 29/71 (40.85%) requested both deworming and vaccination (Table 3).

Out of 27 clients presenting cats for aesthetic reasons/procedures, 7/27 (25.93%) were for nail clipping, 8/27 (29.63%) for bathing, 7/27 (25.93%) for grooming, and 5/27 (18.52%) for combined nail clipping, bathing, and grooming (Table 3).

Diagnoses of various conditions were made based on the primary complaint, clients' request and clinical signs observed in the cats. The frequency of 131/209 (62.68%) request were diagnosed and 16/209 (7.66%) were confirmed helminthosis, 9/209 (4.31%) were open wounds, 7/209 (3.35%) fractures, 5/209 (2.39%) gastroenteritis and 4/209 (1.91%) sprain. Cornea opacity, poisoning and URTI had frequencies of 3/209(1.44%) each. Ten disease conditions diagnosed had frequencies of 2/209 (0.96%) each while eight disease conditions diagnosed had frequencies of 1(0.48%) each (Table 4).

During the study period, the clinic received 131 client requests. Of these, 27/131 (20.61%) were related to aesthetic procedures. Neutering accounted for 14/131 (10.68%) of the requests, while routine checks and vaccinations comprised 71/131 (54.20%). Additionally, 8/131 (6.11%) requests were for boarding, 6/131 (4.58%) for registration, 2/131 (1.53%) for routine screening and rabies serology, and 1/131 (0.76%) for micro chipping (Table 4).

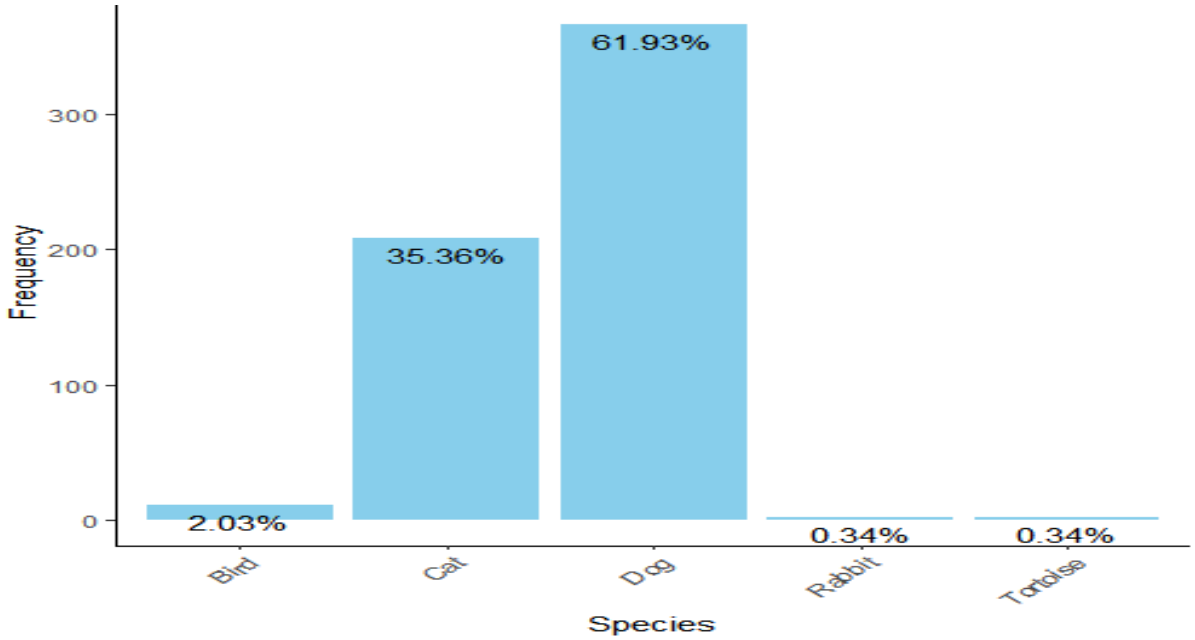

Figure 1: The frequencies of animal species presented to selected Veterinary Clinics for case management from July to November 2023.

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Table 1: Sex, age and breed distribution of cats presented to the selected Veterinary Clinics from July to November 2023.

SEX	**FREQUENCY**	**PERCENTAGE**
Female	111	53.11
Male	98	46.89
AGE		
Kitten 0-6 months	46	22.01
Junior (7 months – 2 years)	93	44.50
Adult (3-6 years)	35	16.75
Mature (7-10 years)	17	8.13
Senior	6	2.87
Unknown	12	5.4
BREEDS		
Domestic short hair	134	64.11
Persian	47	22.49
Persian cross	6	2.87
DSH Cross	3	1.44
British short hair	3	1.44
Maine Coon	3	1.44
Chinchilla	2	0.96
Scottish fold	2	0.96
Turkish Angora	2	0.96
Bombay	1	0.48
Abyssinian	1	0.48
Turkish Van	1	0.48
American Blue Point	1	0.48
European short hair	1	0.48
Ragdoll	1	0.48
Cornish Rex	1	0.48

Key: DSH = Domestic short hair

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Table 2: Degree of Confinement, presenters, and monthly distribution of cats at selected veterinary Clinics from July to November 2023

Confinement	**Frequency**	**Percentage**
Full	133	63.64
Partial	71	33.97
None	5	2.39
Presenter		
Owner	160	76.56
Others	49	23.44
Monthly Distribution		
July	26	12.44
August	36	17.22
September	52	24.88
October	72	34.45
November	23	11.00

Table 3: The chief complaints of cat cases presented to the selected veterinary clinics from July to November, 2023.

Chief Complaint	Frequency	Percentage
Routine check and vaccination	71	33.97
GIT symptoms	28	13.40
UT symptoms	2	0.96
Limping	11	5.26
Neuter	14	6.70
Aesthetics	27	12.92
Pregnancy test	2	0.96
Ocular symptoms	6	2.87
Skin symptoms	2	0.96
Open wound	9	4.31
Boarding	8	3.83
Ear scratching	6	2.87
URT Symptoms	3	1.44
Salivation	1	0.48
Difficult birth	2	0.96
Recumbency	3	1.44
Redness around the anal region	1	0.48
Micro chipping	1	0.48
Rabies titre serology	2	0.96
Routine screening	2	0.96
Flea infestation	1	0.48
Registration	6	2.87
Weakness	1	0.48
Total	209	100

GIT: gastrointestinal tract; UT: Urinary tract; URT: Upper respiratory tract

Table 4: Request and disease conditions of cats presented to the selected veterinary clinics from July to November, 2023

Diagnosis	**Frequency**	**Percentage**
Request	131	62.68
Helminthosis	16	7.66
Ectoparasitism	1	0.48
Otitis	2	0.96
Sprain	4	1.91
Fracture	7	3.35
Cornea opacity	3	1.44
Blepheroplasm	1	0.48
Cornea puncture	2	0. .96
Open wound	9	4.31
Gastroenteritis	5	2.39
Septicaemia	2	0.96
Food intolerance	2	0.96
Pododermatitis	1	0.48
Dermatophytosis	2	0.96
Myiasis	1	0.48
Hypoglycaemia	1	0.48
Poisoning	3	1.44
Pregnancy	2	0.96
Constipation	2	0.96
CKD	1	0.48
Urethral blockage	2	0.96
Feline influenza	1	0.48
URTI	3	1.44
Waxy blockage	2	0.96
Hair balls	1	0.48
Dystocia	2	0.96
Total	**209**	**100**

CKD: chronic kidney disease; URTI: upper respiratory tract infection

DISCUSSION

The present study had given a general idea about the common requests of cat owners and clinical conditions that occurred in cats presented to two selected veterinary clinics within AMAC, from July to November 2023. A total number of 591 cases were presented to the two selected veterinary clinics. Different animal species were presented to the selected veterinary clinics from July to November, 2023 as seen in Fig 1. Dogs accounted for the majority of cases presented to the clinics, with 366/591 (61.93%) recorded.

This mirrors trends observed in Kaduna [7], Maiduguri [8], and global reports [9][10], potentially reflecting the common use of dogs for guarding homes. Despite the relatively short study period (July to November, 2023), the number of cat cases presented to the two selected veterinary clinics was significantly higher compared to previous retrospective studies in Nigeria. For instance, a study in Kaduna State recorded only 19 cat cases over a 10-year period (January 1997 to December 2006) [7]. Another study in Maiduguri reported 90 cat cases over three years (January 1995 to December 1997) [8]. Additionally, a study in Delta State Nigeria recorded 44 cat cases over a 10-year period (January 2006 to December 2016) [11].

Other researchers studying specific disease conditions in cats also reported relatively small case numbers. For instance, [12] recorded 11 cat cases with parasitic diseases in a retrospective study conducted in Jalingo, Northeastern Nigeria, between 1998 and 2008. Additionally, [13] reported only 4 cases of post-partum bleeding in cats over a 13-year period, from January 1993 to December 2005, at the State Veterinary Clinic in Maiduguri. The increase in the number of cat cases in this present study compared to previously reported retrospective studies could be as a result of cat loving interest of people in Abuja Municipal Area council or increasing interest in keeping cats since most of the reports were taking from very old case files. It could equally be as a result of multicultural and multinational nature of Abuja Municipal Area Council with residents engaging in keeping cats as pet.
There is also possibility that some of the cat cases were not properly documented or the case files may have been misplaced which is one of the limitations of retrospective studies. The small sample size of cats in previous studies might not accurately represent the present population, given the lengthy time interval and likely population expansion, resulting in a higher number of cat owners.
Female cats presented were more than the males, this is in line with the article in retrospective study of parasitic diseases of dog and cats in Jalingo on which cat cases occur more in female cats [12].

Younger population of cats comprising mostly junior (7 months to 2years) cats and kittens (0 to 6 months) were presented to the selected veterinary clinic during the study period (Table 1). This agrees with the report of [12] who reported disease in younger dogs and cats. This is most likely because young cats are more susceptible to diseases due to their not yet fully developed immune system and also most client pay more attention to younger cats believing adult cats do not need much medical attention except it becomes critically ill.

Monthly distribution of cat cases as shown in table 1, October has the highest frequency of cats cases with 72/209 (34.45%) and November the least 23/209 (11.00%)

Frequency distribution of cat breeds presented to the selected Veterinary clinics showed that Domestic short hair has the highest frequency 134/209(64.11%) followed by Persian breed 47/209 (22.49%). This maybe the commonest cat breed in AMAC. The majority of the cats were either completely or partially confined. This high frequency of confinement can likely be attributed to cat owners seeking to prevent physical injury, protect their pets from unwanted interactions with people, and prevent indiscriminate mating.

This level of confinement suggests a high level of responsible pet ownership among cat owners, which may have contributed to the relatively high number of cat cases recorded during the study period.

The majority of the cats were presented to the selected veterinary clinics from July to November, 2023 by their owners, 160/209 (76.56%) as shown in Table 3, while other people, which included cat caregivers, owners' security, or maids, presented the remaining cats, 49/209 (23.44%). This shows that the owners of the cats were actively involved in the care of their pets.

The prevalence of Helminthosis in cats in this study supports earlier findings [8, 12]. However, these results diverge from [7], which reported a higher incidence of traumatic injuries, and [11], which documented more ectoparasitism. Interestingly, [11] reported zero instances of routine health checks or vaccinations in cats during their decade-long study.

CONCLUSION

This study reveals that most cat owners in Abuja seek veterinary attention for specific reasons, primarily routine checks and vaccinations, aesthetic procedures, and neutering. The prevalent health issues among cats presented to the selected veterinary clinics were helminthosis, followed by wound-related problems, fractures, sprains, and gastroenteritis.

RECOMMENDATION

We recommend a multi-faceted approach to address feline disease conditions, including collaboration, education, and targeted prevention strategies.

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CONFLICT OF INTEREST

The authors have declared no conflict of interest.

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