



ISSN: 0975-833X

RESEARCH ARTICLE

HEALTH CARE MANAGEMENT PRACTICES OF PET DOGS IN KARNATAKA

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ARTICLE INFO

Article History:

Received 15th June, 2015
Received in revised form
08th July, 2015
Accepted 10th August, 2015
Published online 16th September, 2015

Key words:

Pet dog,
Pet dog owner,
Health care management.

ABSTRACT

Pet owners should be well aware of the fundamentals of management like deworming and vaccination schedules, frequency of ear cleaning, grooming practice, various infectious diseases that affect pets and regarding regular health checkups. Awareness on these scientific practices to maintain health of the pet dogs immensely contribute to the welfare of both pets as well as their owners, hence the present study was carried out to know various health care management practices of pet dogs carried out by pet dog owners of Bengaluru district of Karnataka through multistage random sampling technique. Majority of the respondents carried out regular deworming (60%) and vaccination (62.09%). More than half (51.25%) of the owners took general precautions for sick dogs. Cent per cent of the respondents took their dogs for a regular walk/exercise and majority (84.58%) of the owners expressed that their dogs suffered from previous illness. Since, majority of the respondents had not practiced health care management practices like regular grooming, regular health check-up, isolation practices, there is a dire need to create sufficient awareness with respect to health care management practices among dog owners.

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Citation: Sakshi, S., Satyanarayan, K., Jagadeeswary, V., Yathiraj, S., Rajeshwari, Y. B. and Ansar kamran, 2015. "Health care management practices of pet dogs in Karnataka", *International Journal of Current Research*, 7, (9), 20160-20164.

INTRODUCTION

Man and dog share a relationship of interaction and mutual dependence. The dog contributes a great deal to the satisfaction of crucial human needs, to quality of life and well-being. Pets not only help to fulfill physical needs such as guarding, working but also fulfill socio-emotional needs as well as transpersonal needs of the individuals. The influence of western culture in Indian society has a great impact in the present era (Tiwari et al., 2012). In today's society, there is a growing concern about how pets are treated. Various practices that were once acceptable are now being reassessed and modified according to new knowledge and changing attitudes of the pet owners towards animal care (Vijayakumar et al., 2004b).

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Innovation in veterinary care and a better understanding of care and management through each phase of dog's life cycle such as growth, reproduction, lactation, maintenance and senility have helped in contributing to welfare and a longer life expectancy for dogs (Vijayakumar et al., 2004a). Pet owners are becoming increasingly more knowledgeable when it comes to pet care. As a result, they have number of enquiries towards veterinarians than ever before and are expecting a greater personal involvement in the care and treatment of their pets. Indian household dog population is increasing by 26 per cent every year and about 17 per cent of the households own a pet dog (Sudarshan et al., 2006). Presently, India's dog population is 11.672 million. Out of them, 9.494 million and 2.177 million are present in rural and urban areas, respectively. Among all states in India, Tamil Nadu, Maharashtra and Karnataka stands first (11,13,031), second (10,77,856) and third (10,28,869) in dog population respectively (Basic Animal Husbandry Statistics, 2012).

A census conducted by the department of animal husbandry of Bruhat Bengaluru Mahanagara Palike (BBMP) in 2007 found out that, there were 3,27,218 dogs in Bengaluru. Of these, 1,83,758 were strays and 1,43,522 pets (Dog census, 2007). Unfortunately most of the pet dog owners resort to unscientific management practices, because of convenience. These practices include feeding waste, many-time feeding, keeping the dogs in the house premises without providing adequate shelter, unscientific breeding, irregular exercise schedules and inadequate adoption of preventive vaccination and de-worming (George, 2014). Hence this study would help in better understanding the awareness regarding healthcare management practices of pet dogs by pet dog owners. The results of the present study would help to know how to improve the healthcare management practices of pet dogs.

MATERIALS AND METHODS

The present study was conducted purposively in Bengaluru district because of considerably high density of pet dog population and pet practitioners. Multistage random sampling technique was adopted for the study and the data was collected from two hundred forty pet dog owners visiting veterinary hospitals, dispensaries and clinics of Bengaluru district. Pet dog owners were personally interviewed using pre tested interview schedule between the time period from January 2015 to July 2015. The data collected were analysed employing frequency and percentage.

RESULTS

A total of 240 pet dog owners were interviewed in the study to know various health care management practices followed by them. Regular deworming (60%) was practiced by the owners followed by occasional (16.67%) and rest never practiced deworming (23.33%) for their dogs. About 30 per cent of the respondents dewormed their dog on veterinarian's advice followed by deworming on their own annually (15%), once in 6 months (10.42%) and once in 4 months (4.58%). Regarding vaccination practice, majority (62.09%) of the respondents practiced vaccination regularly followed by occasionally (14.58%) and rest never practiced (23.33%) vaccination for their dogs (Table 1).

More than half (51.25%) of the owners took general precautions for sick dogs like disinfecting the premises regularly and cleaning utensils often. Regarding grooming, majority (64.58%) of the respondents did not practise grooming. Further, majority of the owners practiced nail trimming (59.17%) and ear cleaning (65.83%) respectively. All the respondents took their dogs for regular walk/ exercise. In addition, majority (78.75%) of the owners took measures for ectoparasite control by regular washing of dogs and using medicines as prescribed by the veterinarian. Majority (91.67%) of the owners did not take their dogs for regular health check-up (Table 1).

Table 1. Healthcare management practices

Sl. No.	Health care management practices	Category	Respondents, N=240	
			F	%
1	Deworming practice	i) Regular	144	60
		ii) Occasional	40	16.67
		iii) Never practice	56	23.33
		Regularity of deworming		
		i) On veterinarian advice	72	30
		ii) On their own	72	30
		a) Once in 4 months	11	4.58
		b) Once in 6 months	25	10.42
		c) Annually	36	15
		2	Vaccination practice	i) Regular
ii) Occasional	35			14.58
iii) Never practice	56			23.33
3	General precautions for sick dogs	i) Yes	123	51.25
		a) Clean utensils often	36	15
		b) Disinfect premises regularly and clean utensils often	87	36.25
		ii) No	117	48.75
4	Grooming practice	i) Yes	85	35.42
		a) Daily	9	3.75
		b) Once in two days	11	4.58
		c) Weekly	37	15.42
		d) Fortnightly	28	11.67
		ii) No	155	64.58
5	Nail trimming practice	i) Yes	142	59.17
		ii) No	98	40.83
6	Ear cleaning practice	i) Yes	158	65.83
		a) Fortnightly	34	14.17
		b) Monthly	74	30.83
		c) Once in 2 months	50	20.83
		ii) No	82	34.17
7	Regular walk/exercise	i) Yes	240	100
		ii) No	0	0
8	Control measures for ectoparasite	i) Regular bathing of dogs and Use of medicines prescribed by veterinarian	189	78.75
		ii) Regular bathing of dogs and Picking and destroying	51	21.25

.....Continue

9	Take dogs for regular health check up	i) Yes	20	8.33
		ii) No	220	91.67
10	Treatment on own	i) Yes	8	3.33
		ii) No	232	96.67
11	Use of alternate therapy	i) Yes	3	1.5
		a) Ayurveda	2	1
		b) Homoeopathy	1	0.5
		ii) No	237	98.5
12	History of previous illness	i) Yes	203	84.58
		ii) No	37	15.42
13	Diseases/condition pet have suffered	i) Unaware of disease name	77	32.08
		ii) Skin diseases	145	60.42
		iii) Parvoviral gastro enteritis	102	42.5
		iv) Ehrlichiosis	52	21.67
		v) Leptospirosis	59	24.58
		vi) Skeletal disease	7	2.92
		vii) Kidney disease	18	7.5
		viii) Liver disease	2	1
		viii) Heart disease	3	1.25
		ix) Babesiosis	1	0.5
14	Vaccination for infectious diseases	x) Worm infestation	6	2.5
		i) Rabies	184	76.67
		ii) Combined vaccination (Canine distemper, infectious canine hepatitis, leptospirosis, parainfluenza, canine parvovirus)	152	63.33
		iii) Corona virus	0	0
15	People who take dog to the veterinary facility	viii) Kennel cough	0	0
		i) Owner	193	80.3
		ii) Owner's representative	36	15
		iii) Dog's care taker	2	1
		iv) Driver	9	3.7

Table 2. Isolation practice of pet dogs

Sl. No.	Isolation practice	Category	Respondents, n=50	
			F	%
1	Isolation practice during sick/illness	Yes	9	18
		No	41	82

Related to history of previous illness, majority (84.58%) of the owners expressed that their dogs had suffered from previous illness mainly from skin diseases (60.42%). Further, majority of the owners did not treat their pets on their own (96.67%) and used any alternate therapy (98.5%). Related to vaccination against different diseases, majority of the owners carried out vaccination against rabies (76.67%) and followed combined vaccinations (63.33%) against canine distemper, canine hepatitis, leptospirosis, parainfluenza and parvoviral disease. About 80.3 per cent of the owners themselves took their dogs to the veterinary facility (Table 1). Among the respondents who possessed more than one dog, majority (82%) did not follow isolation practice of sick dogs from healthy dogs (Table 2).

DISCUSSION

Regular deworming was practiced by majority (60%) of the owners which might be due to regular advice from veterinarians who had created sufficient awareness among the owners about parasitic diseases and their effect on the dog health as well as their own health. The results were in partial in consonance with the findings of Vijayakumar *et al.* (2004b) and Basarajappa (2013) where as findings of Yimer *et al.* (2012) found out that majority did not deworm their dogs.

Regarding regularity of deworming practice, Bhadesiya and Raval (2014) revealed that majority of the owners were aware of deworming protocol but the findings were not in consonance with Vijayakumar *et al.* (2004b). Majority of the respondents practiced vaccination regularly (62.09%) showing adequate knowledge regarding importance of carrying out regular vaccination. The findings were partially in line with the findings of Leslie *et al.* (1988), Hsu *et al.* (2003), Vijayakumar *et al.* (2004b) and Matibag *et al.* (2007) who reported that, majority of the owners vaccinated their dogs. Bhadesiya and Raval (2014) revealed that, majority of the pet owners were aware of vaccination practice against infectious diseases whereas the results were not in agreement with the findings of Sharma (2005), Yimer *et al.* (2012) and Thomas *et al.* (2013).

The study revealed that, nearly half (51.25%) of the owners took general precautions for sick dogs like disinfecting the premises regularly and cleaning utensils often (36.25%). Inadequate knowledge regarding hygienic practices that are needed to be taken during illness, ignorance and lack of manpower could be attributed to the above finding of half of the owners for not taking any general precautions for sick dogs. Regarding grooming practice, results were in line with the findings of Basarajappa (2013) but contrary to Vijayakumar *et al.* (2004b) who reported that, majority of the owners practiced grooming at weekly intervals. Majority

(59.17%) of the respondents practiced nail trimming. Presence of middle aged and old dogs in the study and also adequate knowledge regarding importance of nail trimming could be attributed to the observation of above results. The present findings were in consonance with the findings of Vijayakumar *et al.* (2004b) who reported that majority of the pet owners practiced nail trimming.

Related to regular walk/ exercise, cent per cent of the respondents took their dogs for a regular walk/exercise as the owners had sufficient awareness regarding importance of regular walk/exercise and the findings of the study were in agreement with those of Rohlf *et al.* (2010) and Meyer and Forkman (2014). Majority (78.75%) of dog owners practiced regular bathing along with the use of medicines prescribed by the veterinarian for ectoparasite control. Positive perception of the owners treatment from the veterinarian was effective could be the possible reason for the above observed results. The results were not similar to the findings of Farkas *et al.* (2009) and Basarajappa (2013) who opined that majority of the respondents did not use any ectoparasite control products.

The study revealed that, majority (91.67%) of the pet owners did not take their dogs for regular health check-up as they had inadequate awareness regarding the importance and advantages of taking dogs for regular health check-up which in turn contributes to wellbeing of the dogs. The findings were in conformity with the findings of Vijayakumar *et al.* (2004b) and Bhadesiya and Raval (2014) but disagreement with the findings of Hsu *et al.* (2003) who reported in their study that dog owners regularly took their dogs for health check-up. Majority (60.42%) of the respondents experienced skin diseases in their dogs. Environmental conditions, poor management techniques followed by owners and susceptibility of dog's skin may be the precursor to skin diseases. The results were partially in agreement to the findings of Sallander *et al.* (2001) and Vijayakumar *et al.* (2004b) who reported that pets suffered from skin disorders, infections, ear diseases, worm infestation, canine distemper, parvo viral infection, leptospirosis and skeletal disease. It was confirmed from the study that, majority (96.67%) of the owners never treated their dogs on their own as they believed that their dogs should be treated by an expert in the field whereas 3.33 per cent treated their pets on their own.

Less percentage (63.33%) of the respondents followed combined vaccination for their dogs when compared to rabies vaccination (76.67%), this may be due to cost factor and less awareness about various diseases which can be prevented through combined vaccination. The results were in consonance with the findings of Basarajappa (2013) who opined that, majority of the owners carried rabies vaccinations and combined vaccinations whereas results were partially similar with the earlier findings of Vijayakumar *et al.* (2004b), Weng *et al.* (2006) and Sambo *et al.* (2014) who reported that majority of the owners vaccinated against rabies. Jamett *et al.* (2010) found out that owners vaccinated their dogs against canine parvovirus and canine distemper. Majority (80.3%) of the respondents themselves took their dogs to veterinary facility indicating their care and attachment towards their pet dogs. Regarding isolation practice, majority (82%) of the

owners who owned more than one dog did not follow isolation practice which revealed the lack of awareness, ignorance as well as non-availability of separate space or facilities to isolate sick dogs from healthy dogs.

Conclusion

Related to health care management, majority of the owners had practiced various health care management practices and also majority of the respondents had not practiced various practices like isolation practice, regular grooming, regular health check-up hence, there is a need to create and enhance pet dog owners awareness on scientific dog rearing through various information sources like veterinarians, television, news paper, radio, animal exhibition, NGO's, breed clubs, breeders, kennel club magazines, seminars, extension agents and trainings for effective dissemination of the information based on prioritization of the information needs of the dog owners.

Acknowledgement

The authors are thankful to veterinary hospitals, dispensaries and clinics at Bengaluru district for providing necessity facilities to carry out the research.

REFERENCES

- Basarajappa, A. D. 2013. Knowledge level and information needs of dog owners about scientific dog rearing practices in India. M.V.Sc. Thesis, Department of Veterinary and Animal Husbandry Extension, Indian Veterinary Research Institute, Izatnagar, Uttar Pradesh.
- Basic Animal Husbandry Statistics (BAHS)/19th livestock census, 2012., Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture. Government of India.
- Bhadesiya, C. M. and Raval, S. K. 2014. Percentage analysis of knowledge level for dog-ownership in rural areas of Gujarat. *Int. J. Soc. Sci. Humanit. Res.*, 2(4): 300-302.
- Dog Census, 2007, Department of Animal Husbandry - Bruhat Bengaluru Mahanagara Palike (BBMP). Government of Karnataka.
- Farkas, R., Gyurkovszky, M., Solymosi, N. and Beugnet, F. 2009. Prevalence of flea infestation in dogs and cats in Hungary combined with a survey of owner awareness. *Med. Vet. Entomol.*, 23(3): 187-94.
- George, A. 2014. Development of an information technology based advisory system on scientific management of pet dogs. Ph.D. Thesis, Department of Veterinary and Animal Husbandry Extension, College of Veterinary and Animal Sciences Mannuthy, Kerala, India.
- Hsu, Y., Severinghaus, L. L. and Serpell. J. A. 2003. Dog Keeping in Taiwan: Its contribution to the problem of free-roaming dogs. *J. Appl. Anim. Welf. Sci.*, 6(1): 1-23.
- Jamett, A.G., Cleaveland, S., Cunningham, A. A. and Bronsvort, B. M. 2010. Demography of domestic dogs in rural and urban areas of the Coquimbo region of Chile and implications for disease transmission. *Prev. Vet. Med.*, 94(3-4): 272-281.
- Katagiri, S. and oliveira-sequeira, T. C. 2008. Prevalence of dog intestinal parasites and risk perception of zoonotic infection by dog owners in Sao Paulo state, Brazil. *Zoonoses Public Hlth.*, 55(8-10): 406-413.

- Leslie, B. E., Meeka, A. H., Kawashb, G. F. and Mckeown, D. B. 1988. An epidemiological investigation of pet ownership in South Central Ontario, Canada. *Acta. Vet. Scand. Suppl.*, 84: 323-325.
- Matibag, G.C., Kamigaki, T., Kumarasiri, P.V.R., Wijewardana, T.G., KalupahanA, A.W., Anuruddhika Dissanayake, D.R., Niranjala De Silva, D.D., Gunawardena, G.S.P.S., Obayashi, Y. and Kanda, K. 2007. Knowledge, attitudes, and practices survey of rabies in a community in Sri Lanka. *Environ. Hlth. Prev. Med.*, 12(2): 84-89.
- Matibag, G.C., Ohbayashi, Y., Kanda, K., Yamashina, H., Kumara, W. R., Perera, I., Niranjala De Silva, D.D., Gunawardena, G.S., Jayasinghe, A., Ditangco, R.A. and Tamashiro, H. 2009. A pilot study on the usefulness of information and education campaign materials in enhancing the knowledge, attitude and practice on rabies in rural Sri Lanka. *J. Infect. Dev. Ctries.*, 3(1): 55-64.
- Meyer, I. and Forkman. B. 2014. Dog and owner characteristics affecting the dog owner relationship. *J. Vet. Behav.*, 9(4): 143-150.
- Pfukenyi, D. M., Chipunga, S. L., Dinginya, L. and Matenga, E. 2010. A survey of pet ownership, awareness and public knowledge of pet zoonoses with particular reference to roundworms and hookworms in Harare, Zimbabwe. *Trop. Anim. Hlth. Prod.*, 42(2): 247-52.
- Rohlf, V. I., Toukhsati, S. A., Grahame, J., Coleman, A. and Bennett, P. C. 2010. Dog obesity: can dog caregivers (owners) feeding and exercise intentions and behaviours be predicted from attitudes. *J. Appl. Anim. Welf. Sci.*, 13(3): 213-236.
- Sallander, M., Hedhammar, A., Rundgren, M. and Lindberg, J. E. 2001. Demographic data of a population of insured Swedish dogs measured in a questionnaire study. *Acta Vet. Scand.*, 242(1): 71-80.
- Sambo, M., Lembo, T., Cleaveland, S., Ferguson, H. M., Sikana, L., Simon, C., Urassa, H. and Hampson, K., 2014. Knowledge, attitudes and practices (KAP) about rabies prevention and control: A community survey in Tanzania. *PLoS Negl Trop Dis.*, 8(12): 1-10.
- Sharma. M. 2005. Knowledge and attitude of dog owners towards the dog anti rabies vaccination. *J. Nepal Hlth. Res. Counc.*, 3(1): 11-16.
- Sudarshan, M. K., Mahendra, B. J., Madhusudhana, S. N., Ashwoath Narayana, D. H., Rahman, A., Rao, N. S., X-meslin, F., Lobo, D., Ravikumar, K. and Gangaboraiah. 2006. An epidemiological study of animal bites in India: results of a WHO sponsored national multi-centric rabies survey. *J. Commun. Dis.*, 38(1): 32-39.
- Thomas, D., Delgadob, A., Louisona, B., Lefrancois, T. and Shaw. J. 2013. Examining dog owners' beliefs regarding rabies vaccination during government-funded vaccine clinics in Grenada to improve vaccine coverage rates. *Prev. Vet. Med.*, 110(3-4): 563-569.
- Tiwari, R., Sharma, M. C., Mishra, K. K. and Singh, B. P. 2012. Dog breeding: a lucrative business option for youth. *Pet India*. <http://pet-india.com/April2012/Breeding.htm>.
- Vijayakumar, P., Xavier, F. and Anil, L., 2004a. Feeding management of pet dogs in Central Kerala - a report. *Anim. Nutr. Feed Techn.*, 4: 77-81.
- Vijayakumar, P., Xavier, F. and Anil, L., 2004b. Health management of pet dogs in Central Kerala. *Indian J. Anim. Hlth.*, 43(2): 134-138.
- Weng, H. Y., Kass, P. H., Hart, L. A. and Chomel, B. B. 2006. Risk factors for unsuccessful dog ownership: An epidemiologic study in Taiwan. *Prev. Vet. Med.*, 77(1-2): 82-95.
- Yimer, E., Mesfin, A., Beyene, M., Bekele, A., Taye, G., Zewdie, B. and Alemayehu, T. 2012. Study on knowledge, attitude and dog ownership patterns related to rabies prevention and control in Addis Ababa, Ethiopia. *Ethiop. Vet. J.*, 16(2): 27-39.
