

Study on the Assessment of Knowledge Levels on Parasitic Zoonoses among Dog owners of Puducherry

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Abstract

A study was conducted among the pet owners to assess their awareness about the zoonotic pet parasitic diseases. Data on age, sex, educational qualification, pet management and their knowledge level on zoonotic diseases and deworming practices were collected from 50 dog owners using a structured questionnaires. As per the data, it showed that awareness on deworming of dogs and the importance of transmission of zoonotic diseases is very less among the pet owners of Puducherry. Awareness programme through deworming camps has to be implemented.

Keywords: pet parasite, awareness, zoonotic diseases

Introduction

Dogs serve a range of cultural, social, and economic function in the society. Human has been keeping them as pets and companions from the time immemorial. Because of this, they can be direct or indirect source of many human infections (Savolainen *et al.*, 2002).

Gastrointestinal helminthiasis is the most commonly encountered disease in dogs and also acts as a major constraint in dog rearing across the globe including India (Traubet *et al.*, 2007). Several studies on epidemiology of canine intestinal parasites have been reported in many parts of the world including India. In India, perusal of literature revealed prevalence of helminthes infection were 2.21% in Puducherry (Dasset *et al.*, 2009), 19.71% in Punjab (Harbinder *et al.*, 1997), 19.5% in Jabalpur (Qadiret *et al.*, 2011), 24.3%

in Bareilly, Uttar Pradesh (Sahu *et al.*, 2014), and 40.4% in Bangalore (Souza *et al.*, 2002).

Since dogs and cats live in a close proximity with human, there is a potential for zoonotic effect which can lead to transmission of these diseases to humans and cause serious consequences.

Materials and Methods

The study was conducted at Teaching Veterinary Clinical Campus, RIVER, Puducherry, with a sample size of 50 respondents. The study was conducted to estimate the zoonosis awareness level of pet owners in this study area. The questionnaire was designed to collect data on age, sex, educational qualification, pet management and their knowledge level on zoonotic diseases, deworming practices and other related factors. The participants were selected based on simple random sampling.

The data were analysed statistically by PASW statistics software to determine the extent of awareness on health status of dogs.

Results

It was found that 36% of the pet owners aware about the health risk of pet animal zoonotic diseases and the remaining 64% owners didn't aware about this. The details are depicted below.

Parameters		No.	Percentiles (%)
Sex	Male	36	72
	Female	14	28
Age	<25	20	40
	25-35	14	28
	35-45	9	18
	>45	7	14
Educational status	Illiterate	3	6
	Schooling	17	34
	Graduate	30	60
Purpose of keeping pet	Companion	34	68
	Guarding	12	24
	both	4	8
System of rearing	Indoor	24	48
	Outdoor	4	8
	Indoor and outdoor	12	24
	Free	5	10
Type of house	Individual	44	88
	Apartment	4	8
	Kennel	2	4
Cleaning interval	Once in a day	31	62
	Once in a week	14	28
	Once in 10 days	2	4
	Never	3	6
Defecation habit of the pet	Trained	39	78
	Toilet	5	10
	Everywhere	6	12
Awareness on zoonotic parasite	Present	18	36
	Absent	32	64
Awareness on deworming	Present	38	76
	Absent	12	24
Pet regularly dewormed	yes	29	58
	No	21	42
Knowledge on proper disposal of feces after deworming	Present	8	16
	Absent	42	84
Control of ectoparasite	No ectoparasites	28	56
	Ectoparasites present	22	44
Feed type	Veg	7	14
	Non – veg	8	16
	Both	35	70
Feeding raw food (meat/offals/fish)	Yes	6	12
	No	44	88

The educated owners are more in numbers (60%), however, they feed raw meet/offals to their pets (Table 2) but it is not statistically significant ($p = 0.443$).

Table 1: Sex vs. Awareness on zoonotic parasite

			Awareness on zoonotic parasite		Total
			Present	Absent	
Sex	Male	Count	9	27	36
		% within Sex	25.0%	75.0%	100.0%
	Female	Count	9	5	14
		% within Sex	64.3%	35.7%	100.0%
Total		Count	18	32	50
		% within Sex	36.0%	64.0%	100.0%

Table 2: Educational status vs. Raw feeding

			Raw feeding		Total	
			Yes	No		
Educational status	Illiterate	Count	0	3	3	
		% within Educational status	.0%	100.0%	100.0%	
	Schooling	Count	1	16	17	
		% within Educational status	5.9%	94.1%	100.0%	
	Graduate	Count	5	25	30	
		% within Educational status	16.7%	83.3%	100.0%	
	Total		Count	6	44	50
			% within Educational status	12.0%	88.0%	100.0%

Table 3: Sex vs. awareness on Deworming

			Awareness on deworming		Total
			Present	Absent	
Sex	Male	Count	27	9	36
		% within Sex	75.0%	25.0%	100.0%
	Female	Count	11	3	14
		% within Sex	78.6%	21.4%	100.0%
Total		Count	38	12	50
		% within Sex	76.0%	24.0%	100.0%

Table 4: Sex vs. Regularity

			Regularity		Total
			Yes	No	
Sex	Male	Count	19	17	36
		% within Sex	52.8%	47.2%	100.0%
	Female	Count	10	4	14
		% within Sex	71.4%	28.6%	100.0%
Total		Count	29	21	50
		% within Sex	58.0%	42.0%	100.0%

Table 5: Sex Vs. Knowledge Proper disposal of faeces after deworming

			Proper disposal		Total
			Present	Absent	
Sex	Male	Count	6	30	36
		% within Sex	16.7%	83.3%	100.0%
	Female	Count	3	11	14
		% within Sex	21.4%	78.6%	100.0%
Total		Count	9	41	50
		% within Sex	18.0%	82.0%	100.0%

Discussion

Although the perusal of literature revealed prevalence of helminthes infection were 2.21% in Puducherry (Dasset *et al.*, 2009) the questionnaire survey revealed lack of awareness (64%) of pet parasitic zoonotic diseases in this area.

According to sex, the female are having more knowledge (64.3 %) about the zoonotic pet parasitic diseases than the male (Table 1) ($p = 0.012$ significant). The purpose of keeping pet is for companionship 68%, guarding 24% and 8% for both purposes. Regarding the management, 58% of the owners keep their pets indoor along with them, 8% outdoor, 24% maintained in both conditions and 10% of owners keep as free range. Although the owners are aware of deworming (76%) only 58% of the owners are deworming the pets regularly.

Sex wise awareness on deworming (table -3) revealed women are more aware

than men however, it is not statistically significant ($p = 0.552$). More number offemales are regularly deworming (table -4) their pets than the males ($p=0.341$). Both male and female are having less knowledge on proper disposal of faeces after the deworming (table – 5) as the worms or the eggs of the parasite will come through the faeces after administering the drug.

Conclusion

According to the study, the awareness on deworming of the dogs and the significance of zoonosis of these diseases is limited among the pet owners of Puducherry. Awareness programme through deworming camps has to be routinely implemented.

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