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AWARENESS OF RABIES IN KAFIN-HAUSA LOCAL GOVERNMENT AREA OF JIGAWA STATE

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ABSTRACT

The study was conducted to investigate awareness of rabies in Kafin –Hausa Local Government Area of Jigawa state, Nigeria. Sixty (60) respondents were randomly selected across the study area. Information was obtained using a structured questionnaire. The study area was divided into twelve wards and in each ward, 5 respondents were selected using simple random sampling technique making a total sample size of sixty respondents. Information on socioeconomic characteristics, dog management practices and rabies awareness were solicited. The data obtained were analyzed using simple descriptive statistics. Results showed that majority of the respondents were male (83.33%) of 21-30 years (45.00%), single (55.00%) with very good Arabic background (66.67%) and civil servants (58.33%). Most (83.33%) of the respondents kept dog (s) with those keeping only one dog taking the largest proportion (58.00%). Majority of the respondents kept dogs for up to five (5) years, mainly to serve as a source of security (52.00%). Most of the respondents (62.00%s) were aware of dog biting (78.00%) and believed that dog bites only when they were provoked (78.00%). Majority of the respondents have knowledge on rabies (92.00%). Rabies is popularly (36.00%) known as 'Mahaukacin Kare' and is transmitted via biting (62.00%). Most of the respondents (96.00%) vaccinate their dogs against rabies and they (46.00%) took victims to hospital whenever there was dog's bite. It is concluded that anyone who receives dog bite should seek for treatment immediately and regular antirabies vaccinations for all pets and domestic animals is recommended.

Key words: Awareness, Dog, Jigawa State, Kafin-Hausa and Rabies

INTRODUCTION

Rabies is a vaccine-preventable, zoonotic, viral disease, caused by RNA virus of the rhabdovirus family. Once clinical symptoms appear, rabies is virtually 100% fatal. In up to 99% of cases, domestic dogs are responsible for rabies virus transmission to humans. Yet, rabies can affect both domestic and wild animals. It is spread to people and animals through bites or scratches, usually via saliva (Jackson *et al.,* 2003). Rabies is present on all continents, except Antarctica, with over 95% of human deaths occurring in the Asia and Africa regions. Rabies is one of the Neglected Tropical Diseases (NTD) that predominantly affects poor and vulnerable populations who live in remote rural locations. Approximately 80% of human cases occur in rural areas. Although effective human vaccines and immunoglobulins exist for rabies, they are not readily available or accessible to those in need (WHO, 1998).

Every year, more than 29 million people worldwide receive a post-bite vaccination. This is estimated to prevent hundreds of thousands of rabies deaths annually. Globally, the economic burden of dog-mediated rabies is estimated at US$ 8.6 billion per year (Knobel *et al*., 2010). Vaccinating dogs is the most cost-effective strategy for preventing rabies. Dog vaccination reduces deaths attributable to dog-mediated rabies and the need for post-exposure prophylaxis (PEP) as a part of dog bite patient care (Deressa *et al.,* 2010). The aim of this study was to determine the socio-economic characteristics of the respondents as well as ascertain the level of awareness of Rabies in Kafin-Hausa Local Government Area of Jigawa State.

MATERIALS AND METHOD

The study was conducted at Kafin –Hausa Local Government Area of Jigawa state, Nigeria. The study area has a total land of 1, 380 square kilometer and a population of 12, 609 (NPC, 2006). It's located at latitude 12^0 14' 21.59''N and longitude 9^0 54' 39.78''E. The altitude of the area is 359M above sea level. Kafin - Hausa is sited at the North Eastern part of Jigawa State along Kano to Maiduguri road and it's bordered with Hadejia and Auyo from North and Bauchi state from East. The area falls within the Sudan Savannah ecological zone of Nigeria. Information was obtained using a structured questionnaire. The study area was divided into ten wards and in each ward, 6 respondents were selected using simple random sampling technique making a total sample size of sixty respondents. Information solicited from the respondents included, data on socioeconomic characteristics such as age, sex, marital status, educational status and occupation, also information on dog management practices and rabies awareness were solicited. The information obtained from the respondents was analyzed using simple descriptive statistics.

RESULTS AND DISCUSSION

Table 1 presents the socio-economic characteristic of the respondents. Majority of them were male (83.33%) of 21-30 years (45.00%), single (55.00%) with very good Arabic background (66.67%) and civil servants (58.33%).

Table 1: Socio-Economic Parameters of the Respondents

Parameter	Frequency	Parameter	Frequency
Age (Years)		Education Status	
10-20	22 (36.67)	Primary	05 (8.33)
21-30	27(45.00)	Secondary	10 (16.67)
31-40	06(10.00)	Tertiary	5(8.33)
41-50	02(3.33)	Arabic	40(66.67)
>51	03 (5.00)	**Total**	**60(100.00)**
Total	**60(100.00)**	Occupation	
Sex		Civil Servant	35(58.33)
Male	50(83.33)	Farming	11(18.33)
Female	10(16.67)	Trading	14(23.34)
Total	**60(100.00)**	**Total**	**60(100.00)**
Marital Status			
Single	33(55.00)		
Divorced	4(6.67)		
Married	23(38.33)		
Total	**60(100.00)**		

Source: Field Data, 2019
Figures in the parenthesis are the percentages
Table 2: Dog Management Practices and Rabies Awareness

Parameter	Frequency	Parameter	Frequency
Do you keep Dog(s)?		Are you aware of rabies?	
Yes	50 (83.33)	Yes	46 (92.00)
No	10(16.67)	No	4 (8.00)
Total	**60(100.00)**	**Total**	**50(100.00)**
How many Dog(s) do you keep?		What do you call rabies in your language?	
1	29(58.00)	Ciwon kare	15(30.00)
2	8(16.00)	Mahaukacin kare	18(36.00)
3	6(12.00)	Haukan kare	6(12.00)
4	2(4.00)	Karen hauka	11(22.00)
5	5(10.00)	**Total**	**50(100.00)**
Total	50(100.00)	How is rabies transmitted?	
Reason for keeping Dog(s)		I don't know	2(4.00)
Pet	3 (6.00)	Through biting	46(92.00)
Security	26(52.00)	Through eating dog's meat	2(4.00)
Breeding	3(6.00)	**Total**	**50(100.00)**
Hunting	18(36.00)	Do you vaccinate your dog(s) against rabies?	
Total	**50(100.00)**	Yes	48(96.00)
How long (years) have you been keeping dog(s)?		No	2(4.00)
0-5	33(66.00)	**Total**	**50(100.00)**
6-11	10(20.00)	Have you heard of dog's biting?	
>12	7(14.00)	Yes	31(62.00)
Total	**50(100.00)**	No	19(38.00)
What causes dog's biting?		**Total**	**50(100.00)**
Provoke	39(78.00)	Have you heard of anti-rabies vaccine?	
Unprovoked	11(22.00)	Yes	42(84.00)
Total	**50(100.00)**	No	8(16.00)
		Total	**50(100.00)**
		What do you do when there is dog's biting?	
		Administer milk to the victim	15(30.00)
		Take the victim to hospital	23(46.00)
		Wash the wound	12(24.00)

Source: Field Data, 2019

Figures in the parenthesis are the percentages

Table 2 shows dog management practices and rabies awareness. Most (83.33%) of the respondents kept dog (s) with those keeping only one dog taking the largest proportion (58.00%). Majority of the respondents kept dogs for up to five (5) years, mainly to serve as a source of security (52.00%). Most of the respondents (62.00%s) were aware of dog biting (78.00%) and believed that dog bites only when they were provoked (78.00%). Majority of the respondents have knowledge on rabies (92.00%). Rabies is popularly (36.00%) known as 'Mahaukacin Kare' and is transmitted via biting (62.00%). Most of the respondents (96.00%) vaccinate their dogs against rabies and they (46.00%) took victims to hospital whenever there was dog's bite.

The age of the respondents reported in this work is similar to that obtained by Zahraddeen *et al*. (2012), who studied Prospects of Commercial Duck Breeding in Nigeria: A Case Study of Jigawa State. Higher proportion of male involves in this study agrees with the finding of Garba *et al*., (2012), who examined Common Browse Plants of Ruminant Livestock and their nutritive values in Kazaure Local Government Area, Jigawa State, Nigeria.

Education on dog behaviour and bite prevention is an essential extension of a rabies vaccination programme and can decrease both the incidence of human rabies and the financial burden of treating dog bites. Vaccine is used to immunize people. Pre-exposure immunization is recommended for people in certain high-risk occupations (Abraham *et al.,* 2013).

If a person is bitten or scratched by an animal that may have rabies, or if the animal licks an open wound, the individual should immediately wash any bites and scratches for 15 minutes with soapy water, povidone iodine or detergent. This might minimize the number of viral particles. Then he must seek medical help at once**.** After exposure and before symptoms begin, a series of strategies can prevent the virus from thriving. These strategies include:

i) A fast-acting dose of rabies immune globulin: Delivered as soon as possible, close to the bite wound, this can prevent the virus from infecting the individual, and ii) A series of rabies vaccines: These will be injected into the arm over the next 2 to 4 weeks. These will train the body to fight the virus whenever it finds it.

CONCLUSION AND RECOMMENDATION

In conclusion, anyone who receives dog bite should seek for treatment immediately and regular anti-rabies vaccinations for all pets and domestic animals is recommended.

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