



Assessment of Community Knowledge, Attitude and Practice towards Rabies in Mersa Town, Amhara Regional State, Ethiopia

Jemal Gebeyaw¹, Friat Kidanemariam¹, Haben Fesseha^{2*}

¹College of Veterinary Science, Mekelle University, P.O. Box: 2084, Mekelle, Ethiopia

²School of Veterinary Medicine, Wolaita Sodo University, P.O. Box: 138, Wolaita Sodo, Ethiopia

***Corresponding Author:** Haben Fesseha, School of Veterinary Medicine, Wolaita Sodo University, P.O. Box: 138, Wolaita Sodo, Ethiopia

Abstract: Rabies is a worldwide zoonotic disease caused by the lyssavirus and it causes an acute fatal encephalitis that affects all mammals. Therefore, this present study was conducted to assess the community knowledge, attitude and practice on rabies in Mersa town, Amhara region, Ethiopia. A cross-sectional study was conducted from January 2019 to March 2019 in Mersa town. A total of 138 respondents were randomly selected and interviewed using a semi-structured questionnaire to assess the public awareness and practices about the disease. Descriptive and inferential statistics were performed to describe the data. Based on the current assessment, the majority (83.33%) of the respondents haven't heard about rabies. The majority of the respondents (52.5%) replied that rabies can be prevented by vaccination but there were misperceptions on transmission and clinical signs of the disease. Out of 120 respondents, 42(35%) of them use herbal extract and traditional medicine as treatment of rabies. Furthermore, most (60.83%) of respondents let their dogs free in the environment. Also, only 20.83% of the respondents vaccinate their dogs regularly. Overall, respondents having higher education levels take immediate action when a person has bitten by a rabid animal and these are found statistically significant ($p < 0.008$). Besides, mostly they kill a rabid animal and visit health centers soon after the bite and this was also significantly associated ($p < 0.048$) with the level of the education of the respondents. Accordingly, the study showed that there was a low level of awareness and perception regarding rabies in the study community. Therefore, creating awareness to the community through training and public education should be implemented.

Keywords: Knowledge; Mersa; Practices; Questionnaire; Rabie; Altitude.

1. INTRODUCTION

Rabies is a viral zoonosis and human infection usually occurs following a transdermal bite or scratch by an infected animal (World Health Organization, 2005). Rabies is an acute viral infection caused by a lyssavirus in the family Rhabdoviridae. All warm-blooded animals including human beings are susceptible to it. The clinical signs include sudden behavioral changes, hypersalivation, paralysis, hydrophobia and photophobia, restlessness, aggressiveness and biting inanimate objects (Kloos and Berhane, 2006). Rabies causes about 26,000 to 55,000 deaths worldwide per year, more than 95% of which occur in Asia and Africa (Lozano et al., 2012). Every year, more than 15 million people worldwide receive a post-exposure vaccination to prevent the disease-this is estimated to prevent hundreds of thousands of rabies deaths annually. Still, rabies is the 10th biggest cause of death due to infectious diseases worldwide (World Health Organization, 2014).

Rabies is endemic in developing countries of Africa and Asia. The disease causes heavy losses in human and livestock population in the endemic region. The annual cost of rabies in Africa and Asia was estimated at \$583.5 million most of which is due to the cost of Post Exposure Prophylaxis (PEP) (Digafe et al., 2015; Kang et al., 2007). In Africa, the highest recorded human death due to the disease for the year 1998 was reported from Ethiopia (Eshetu et al., 2012).

In Ethiopia, rabies remains to be one of the most feared highly endemic infectious diseases. The annual death due to rabies was estimated to be 10,000 which makes it to be one of the worst affected countries in the world (Zewdie et al., 2018). The presence of a high population of dogs with poor management contributes to the high endemicity of canine rabies in Ethiopia. In canine rabies endemic

countries like Ethiopia, rabies has also significant economic importance by its effect on livestock and in Africa and Asia, the annual cost of livestock losses as a result of rabies is estimated to be \$12.3 million (Knobel et al., 2005). The magnitude of the problem is higher in big cities like Addis Ababa linked with the presence of a large population of stray dogs and associated factors (Yimer et al., 2012).

Poor public awareness towards rabies is considered as one of the bottlenecks for the prevention and control of the disease in Ethiopia (Awoke et al., 2015). Understanding communities' knowledge, attitude, and practice is crucial to plan and implement appropriate control measures. Hence, knowledge, attitude and practice surveys of community have been undertaken in Ethiopia mainly in and around urban areas. However, a community-based KAP study hasn't been carried out in Mersa town, yet. Hence, this paper aims to assess the community knowledge, attitude, and practice of rabies in Mersa town.

2. MATERIALS AND METHODS

2.1. Study Area

The study was conducted in Mersa which is found in Mersa town, Habru district, North Wollo of the Amhara Region in Ethiopia. It has a latitude and longitude of 11°40'N - 39°39.5'E, with an elevation of 1600 meters. The town is found 486.7km from Addis Ababa and its one of the larger areas in the Habru district. Mersa is located along Ethiopian Highway and the livestock population is 313,348 (LFOM, 2013).

2.2. Study Population

The study population included individuals who were resident on Mersa town Habru district, with different Socio-demographic characteristics. Habru district has 32 kebeles and Mersa town is one of the kebele which have four peasant association namely 01, 02, 03 and 04. This study includes individuals of both sex, different age categories and occupation, different marital status and those which were found on different educational levels by simple random sampling. Besides, the target populations were interviewed with specific questions related to assessment, Knowledge, Attitude, and Practice of the community regarding rabies.

2.3. Study Design

A questionnaire survey was conducted using a semi-structured questionnaire by face to face interview to 138 randomly selected respondents to assess the public awareness and practices about the disease. However, the data collected from eighteen (18) respondents were found to be incomplete and excluded from the analysis. The questionnaire was designed to collect information about the respondents' knowledge of the disease, treatment and prevention practices as well as household information.

2.4. Sample Size Determination

Sample size was determined using Cochran's sample size formula for categorical data (Bartlett, 2001)

$$n = Z^2 \frac{p(1-p)}{e^2}$$

Where, Z= 95% degree of confidence (1.96)

P= population proportion of target population, Q=1-p

d = degree of accuracy required

n = the sample size

e=allowable error

$$p=0.1 = \frac{2650}{24000}$$

24000 (household head of Habru district)

q=0.9 where P= Household heads proportion of peasant association 01, 02, 03 and 04 Mersa town

$$n = 1.96^2 \frac{0.1*0.9}{0.05^2} = 138$$

2.5. Sampling Technique

The study was carried out face-to-face interviews using structured and pretest questionnaires which was primary data. The questionnaires were including items regarding their level of KAP concerning rabies management and control, household information, and pet care.

2.6. Method of Data Collection

The following general characteristics of a target population were included in the survey: gender, age, educational attainment and pet ownership for interviews which was primary data at selected households.

2.7. Data Management and Analysis

The data collected from the questionnaire survey were entered into Microsoft Excel 2016 spreadsheet and analyzed using STATA software version 13. Accordingly, descriptive statistics such as frequency distribution and percentages were used to summarize the findings. P-value less than 0.05 was considered as statistically significant.

3. RESULTS

3.1. Socio-Demographic Status of Respondents

The study included more men (75%) than women (25%), and about (31.67%) are illiterate who don't take any of education before. About (46.67%) were between 30-40 years of age which the most productive age. Most of the respondents were reported to be living with pet (52.2%) rather than other living without pets. Besides, the majority (42.5%) of the family size was (4-6). Regards the occupation, merchants (18.33%) were the most respondents followed by unemployment and farmers (Table1).

Table1. Sociodemographic characteristics of respondents in the Mersa town (N=120).

Variables	Frequency	Percentage (%)
Sex		
Male	90	75
Female	30	25
Age		
Between 15-29 years	28	23.33
Between 30-40years	58	46.67
Between 41-49	18	15
Between 50-60	13	10.8
>60 years old	5	4.17
Education		
Illiterate	38	31.67
Informal	23	19.17
Primary school	25	20.8
Secondary school	14	11.67
Higher education	20	16.67
Family size		
1-3	50	41.67
4-6	51	42.5
>6	19	15.83
Occupation		
Government	14	11.67
Unemployment	31	25.83
Farmer	40	33.33
Merchant	22	18.33
Housewife	10	8.33
Others	3	2.5
Living with pet		
With pet	63	52.5
Without pet	57	47.5

3.2. Knowledge of the Respondents on Rabies Disease

The majority of respondents (83.33%) in the study site had not heard about rabies whereas, (16.67%) know about rabies. Besides, the Respondents were known the disease can be prevented by vaccination (52.5%) even though 79.17% of respondents don't take any training about rabies disease. Out of 120 respondents 55% of the respondents know about the most common source of rabies for animals were dogs. With regards, the transmission majority (35.3%) of the respondents described starvation and thirst as causes of the rabies disease and (30%) respondents who know the disease mentioned bite and saliva as a means of transmission, while (28.33%) of the precipitants perceived any type of contact (irrespective of the skin condition) with the saliva of the rabid individual as the source of infection. (43.33%) of interviewers said that the sign of rabid animals was Sudden change in behavior whereas, (36%) the respondents have claimed salivation (Table 2).

Table2. Knowledge of respondents regarding rabies disease in Mersa town

Variables	Frequency	Percentage %
Ever heard rabies before		
Yes	100	83.33
No	20	16.67
The cause of rabies		
Virus	31	25.83
Starvation and trust	43	35.3
psychological problem	11	9.17
Bacteria	19	15.8
Protozoa	0	0
I don't know	16	13.33
Species affected by rabies		
Dog only	30	25.0
Dog and human	51	42.5
Human and other domestic animals	35	29.17
Domestic animals	4	3.33
Means of transmission of rabies		
Bite only	35	29.17
Contact with Saliva only	34	28.33
Bite and saliva	36	30
Consumption of rabid animal meat	3.5	2
Inhalation	9	7.5
I don't know	3	2.5
Animal species Transmit rabies to human		
Dog only	73	60.83
Dog and cat	20	16.67
Other domestic animals	27	22.5
Source of rabies		
Dog	66	55
Bovine	1	0.83
Dog and cat	29	24.17
Equine	0	0
Dog and wild candies	24	20
Sign of the disease		
Salivation	48	40
Sudden change in behavior	52	43.33
All	20	16.67
Is rabies fatal		
Yes	82	68.33
No	17	14.17
I don't know	21	17.5
Training for rabies		
Yes	25	20.83
No	95	79.17

Prevented by vaccination		
Yes	63	52.5
No	36	30
I don't know	21	17.5
Total	120	100

3.3. Attitude and Practice of the Respondents towards Rabies in Mersa Town

According to table 3, 63(52.5%) of respondents kill the animal after being rabid. The study showed that only 27.5% of respondents for those peoples exposed to rabies used post-exposure vaccination. Conversely, 58(48.33%) of interviewers not used post-exposure vaccination and sought traditional methods of treatment which employs the use of herbs (35%) for immediate action for bitten man by a rabid animal. 20.83% of the respondents vaccinate their dogs. 61(50.83%) of interviewers said that the availability of vaccination in different clinics was sometimes, but, (79.17%) of them not state the presence of dog vaccination and (60.83%) of respondents were managing their dogs by kept let free. In general, higher education level was significantly associated with activities of the rabid animal ($\chi^2=20.8480$, $p<0.008$) and immediate action taken for bitten man by a rabid animal ($\chi^2= 26.4728$, $p<0.048$) with high score in killing and visit health center respectively (table 4).

Table3. Attitude and Practice of the Respondents towards Rabies

Variables	Frequency	Percentage %
Action for rabid animal		
Tie	53	44.17
Killing	63	52.5
Do nothing	4	3.33
Immediate action taken for bitten man by rabid animal		
Visit health center	56	46.67
Apply herbal extract	42	35
Holly water	10	8.33
Washing with water and soap	9	7.5
Do nothing	3	2.5
Post-exposure prophylaxis		
Yes	33	27.5
No	58	48.33
I don't know	29	24.17
Vaccine campaign for a dog in your area		
Yes	25	20.83
No	95	79.17
Availability of vaccine		
Yes always	15	12.5
Sometimes	61	50.83
No	44	36.67
Dog management practice		
let free	73	60.83
keep indoor	47	39.17
Your dog can bite you		
Yes	76	63.33
No	44	36.67
When a rabid dog licks your open wound, you can get rabies		
Yes	78	65
No	42	35
Do you feed your dog		
Once	54	45
Twice	32	26.67
Thrice daily	34	28.3
Total	120	100

Table4. Association of Attitude and practice of the Respondents with Educational level

Variable	Category	Illiterate	Informal	Primary School	Secondary School	Higher Education	Chi (X ²) square	P-value
Action for rabid animal	Tie	22(57.89)	11(47.83)	12(48.00)	5(35.71)	3(15.00)	20.8480	0.008
	Killing	16(42.11)	9(39.13)	12(48.0)	8(64.29)	17(85.0)		
	Do nothing	0	3(13.04)	1(4.00)	0	0		
Immediate action taken for bitten man by rabid animal	Visit health center	13(34.21)	7(30.43)	14(56.00)	8(57.14)	14(70.00)	26.4728	0.048
	Apply herbal extract	16(42.11)	14(60.87)	6(24.00)	4(28.57)	2(10.00)		
	Holly water	6(15.79)	1(4.35)	1(4.00)	2(14.29)	0		
	Washing with water and soap	2(5.26)	1(4.35)	3(12.00)	0	3(15.00)		
	Do nothing	1(2.63)	0	1(4.00)	0	1(5.00)		
Post exposure prophylaxis	Yes	10(26.32)	3(13.04)	7(28.00)	3(21.43)	10(50.00)	12.4700	0.131
	No	15(39.47)	13(56.52)	15(60.00)	8(57.14)	7(35.00)		
	I don't know	13(34.21)	7(30.43)	3(12.00)	3(21.43)	3(15.00)		
Availability of vaccine	Yes always	2(5.26)	4(17.39)	2(8.33)	3(21.43)	3(15.79)	5.4161	0.712
	Sometimes	20(52.63)	11(47.83)	13(54.17)	8(57.14)	8(42.11)		
	No	16(42.11)	8(34.78)	9(37.50)	3(21.43)	8(42.11)		
Dog management practice	Let free	26(68.42)	12(31.58)	16(64.00)	9(64.29)	10(50.00)	2.8025	0.591
	Keep in door	12(31.58)	11(47.83)	9(36.00)	5(35.71)	10(50.00)		
Your dog can bite you	Yes	22(57.89)	14(60.87)	15(60.00)	12(85.71)	13(65.00)	3.7075	0.447
	No	16(42.11)	9(39.13)	10(40.00)	2(14.29)	7(35.00)		
When a rabid dog licks your open wound, you can get rabies	Yes	18(47.37)	15(65.22)	15(60.00)	13(92.86)	17(85.00)	13.7598	0.008
	No	20(52.63)	8(34.78)	10(40.00)	1(7.14)	3(15.00)		
Do you feed your dog	Once	22(57.89)	16(69.57)	10(40.00)	2(14.29)	4(20.00)	21.6818	0.868
	Twice	7(18.42)	3(13.04)	10(40.00)	5(35.71)	7(35.00)		
	Thrice daily	9(23.68)	4(17.39)	5(20.00)	7(50.00)	9(45.00)		

4. DISCUSSION

Although the majority of respondents had heard about rabies and were aware of its transmission through dog bites, they lacked knowledge regarding certain practices and risk factors. Very few respondents knew that rabies could be transmitted by species other than domestic dogs. This is consistent with findings from a survey in Thailand that found that only 16% of participants knew that all mammals can suffer from rabies (Kongkaew et al., 2004).

This study showed that the majority of respondents (83.33%) had not heard about rabies. In contrary to the present study; (Ali et al., 2013) reported that 83% of the respondents had heard about rabies from different sources in Addis Ababa, Ethiopia. This difference probably is explained by the lack of media coverage and community education about rabies in the study area.

The present study revealed that (35.3%) of the respondents described starvation and thirst as causes of the rabies disease. This finding is supported by (Ali et al., 2013) who reported 39 (39.0%) respondents did not have any knowledge regarding the mode of transmission. On the other hand, current finding 30% of respondents who know the disease mentioned bite and Saliva as a means of transmission. This result is lower as compared to (Serebe et al., 2014) reported that 46.8% and 45%. The possible reason for this could be due to the lack of the availability information gained by media about rabies transmission.

In this study, a critical component of immediate action taken for bitten man by a rabid animal is immediate washing of the bite wound with water and soap was replied by higher education level respondents (15%) before hospital presentation. This result is evidenced by (World Health Organization, 2005). The current results showed that most of illiterate respondents were unaware of

this preventive practice, which is consistent with other studies (Ichhpujani et al., 2008; Chhabra et al., 2004). Lack of wound washing is responsible for a five-fold increase in the risk of developing rabies (Hampson, 2008). Improved awareness of wound management (especially prompt flushing with any liquid available) could, therefore, have considerable impacts on reducing the probability of developing rabies in these communities. Washing of rabies-infected wounds with soap and water can increase survival by 50 % (Pieracci et al., 2016; Radostits et al., 2007).

This study revealed that the (52.5%) of the Respondents knew the disease can be prevented by vaccination. This finding is lower than studied done by (Chandan and Kotrabasappa, 2016); (Meltzer and Rupprecht, 1998) and (Raymond et al., 2015) who reported 67% and 60 to 70% about rabies vaccination respectively. This difference could be associated with educational status and awareness level of the community.

In the present study, (60.83%) of respondents were managing their dogs by kept let free. This result is evidenced by (Butler and Bingham, 2000) found which is a significant number of households in Sub-Saharan Africa were less likely to confine their dogs, whether in urban and rural areas. In the current study, 27.5% of respondents for those peoples exposed to rabies used post-exposure vaccination. In contrast, the study in Bahar Dar town reported a 55.7% response for immediate post-exposure vaccination (Guadu et al., 2014). This difference may be due to a lack of information about the importance of vaccines and the inaccessibility of vaccination service.

In the present study, 46.67% of interviewers sought traditional methods of treatment which employs the use of herbs for immediate action for bitten man by a rabid animal. Similarly, studies conducted in Gondar district, Ethiopia, reported about 62.2% of the study participants had strong beliefs in traditional medicine (Digafe et al., 2015).

In this study, higher education level was significantly associated with action for the rabid animal by a high score in killing and immediate visit health center after bitten by a rabid animal with the Chi (X²) square and P-value of ($\chi^2=20.8480$, $p<0.008$) and ($\chi^2= 26.4728$, $p<0.048$) respectively. This finding was also supported by studies conducted by (Guadu et al., 2014) in Bahir Dar, (Ali et al., 2013) in Addis Ababa and the studies conducted in Flagstaff, Arizona, USA (McCollum et al., 2012).

5. CONCLUSION AND RECOMMENDATIONS

Rabies is a well-known disease in the study area and is considered to be a disease of significant public health importance. The level of knowledge about the main mode of transmission of animal bite and saliva and source animal (dog) for rabies is good. However, contact with infected saliva and Consumption of rabid animal meat should also be considered as a risk. All mammals should be considered as a potential source of infection and care should be taken in handling these animals if appear sick. On the other hand, there is a lack of training about rabies and knowledge about post-exposure prophylaxis. The presence of low vaccination coverage was also well indicated. Such type of activities poses a health hazard and makes difficult the control of rabies in the area. However, control of the disease can be best achieved with a combination of vaccination, killing of stray dogs and training of community. In conclusion, regular intervention targeted at controlling stray dogs and vaccination of dogs should be employed to control the disease. Moreover, proper post-exposure treatment should be performed for human victims. Creating awareness to the community through training and public education should be implemented.

REFERENCES

- [1] Ali, A., Ahmed, E. Y., and Sifer, D. (2013). A study on knowledge, attitude and practice of rabies among residents in Addis Ababa, Ethiopia. *Ethiopian Veterinary Journal* 17, 19-35.
- [2] Butler, J., and Bingham, J. (2000). Demography and dog-human relationships of the dog population in Zimbabwean communal lands. *Veterinary Record* 147, 442-446.
- [3] Chandan, N., and Kotrabasappa, K. (2016). Awareness of animal bite and rabies among agricultural workers in rural Dharwad, Karnataka, India. *International Journal of Community Medicine and Public Health* 3, 1851-1855.
- [4] Digafe, R. T., Kifelew, L. G., and Mechesso, A. F. (2015). Knowledge, attitudes and practices towards rabies: questionnaire survey in rural household heads of Gondar Zuria District, Ethiopia. *BMC research notes* 8, 400.
- [5] Guadu, T., Shite, A., Chanie, M., Bogale, B., and Fentahun, T. (2014). Assessment of knowledge, attitude and practices about rabies and associated factors: in the case of Bahir Dar town. *Global Veterinaria* 13, 348-54.

- [6] Kang, B., Oh, J., Lee, C., Park, B.-K., Park, Y., Hong, K., Lee, K., Cho, B., and Song, D. (2007). Evaluation of a rapid immunodiagnostic test kit for rabies virus. *Journal of virological methods* 145, 30-36.
- [7] Kloos, H., and Berhane, Y. (2006). Zoonotic diseases of public health importance. *Epidemiology and Ecology of Health and Diseases in Ethiopia*. 1st edition. Edited by: Berhane Y, Hailemariam D, Kloos H. Addis Ababa: Shama books, 692-700.
- [8] Knobel, D. L., Cleaveland, S., Coleman, P. G., Fèvre, E. M., Meltzer, M. I., Miranda, M. E. G., Shaw, A., Zinsstag, J., and Meslin, F.-X. (2005). Re-evaluating the burden of rabies in Africa and Asia. *Bulletin of the World health Organization* 83, 360-368.
- [9] Kongkaew, W., Coleman, P., Pfeiffer, D. U., Antarasena, C., and Thiptara, A. (2004). Vaccination coverage and epidemiological parameters of the owned-dog population in Thungsong District, Thailand. *Preventive veterinary medicine* 65, 105-115.
- [10] LFOM (2013). Livestock and Fishery Office of Mersa. North Wollo.
- [11] Lozano, R., Naghavi, M., Foreman, K., Lim, S., Shibuya, K., Aboyans, V., Abraham, J., Adair, T., Aggarwal, R., and Ahn, S. Y. (2012). Global and regional mortality from 235 causes of death for 20 age groups in 1990 and 2010: a systematic analysis for the Global Burden of Disease Study 2010. *The lancet* 380, 2095-2128.
- [12] McCollum, A. M., Blanton, J. D., Holman, R. C., Callinan, L. S., Baty, S., Phillips, R., Callahan, M., Levy, C., Komatsu, K., and Sunenshine, R. (2012). Community survey after rabies outbreaks, Flagstaff, Arizona, USA. *Emerging infectious diseases* 18, 932.
- [13] Meltzer, M. I., and Rupprecht, C. E. (1998). A review of the economics of the prevention and control of rabies. *Pharmacoeconomics* 14, 365-383.
- [14] Pieracci, E. G., Hall, A. J., Gharpure, R., Haile, A., Walelign, E., Deressa, A., Bahiru, G., Kibebbe, M., Walke, H., and Belay, E. (2016). Prioritizing zoonotic diseases in Ethiopia using a one health approach. *One Health* 2, 131-135.
- [15] Radostits, O. M., Gay, C., Hinchcliff, K. W., and Constable, P. D. (2007). A textbook of the diseases of cattle, horses, sheep, pigs and goats. *Veterinary medicine* 10, 2045-2050.
- [16] Raymond, T. N., Roland, M. E., Françoise, K. M., Francis, Z., Livo, E. F., and Clovis, S. T. (2015). Do open garbage dumps play a role in canine rabies transmission in Biyem-Assi health district in Cameroon? *Infection ecology & epidemiology* 5, 26055.
- [17] Serebe, S. G., Tadesse, K. A., Yizengaw, H. A., and Tamrat, S. M. (2014). Study on community knowledge, attitude and practice of rabies in and nearby Gondar town, North West Ethiopia. *Journal of Public and Epidemiology* 6, 429-35.
- [18] World Health Organization (2005). The control of neglected zoonotic diseases: a route to poverty alleviation Report of a Joint WHO/DFID-AHP Meeting with the participation of FAO and OIE. Geneva, Switzerland: WHO.
- [19] World Health Organization (2014). WHO'S first global report on antibiotic resistance reveals serious, worldwide threat to public health. *Antimicrobial resistance—global surveillance report*. In "Virtual Press Conference", Vol. 30, pp. 253-65.
- [20] 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. *Ethiopian Veterinary Journal* 16, 27-39.
- [21] Zewdie, W., Wario, E., and Tehetna, A. (2018). Assessment of Community Awareness on Common Zoonotic Disease in and around Yabello District of Oromia Regional State, Ethiopia. *Multidisciplinary Advances in Veterinary Science* 2, 388-394.

Citation: Haben Fesseha, et.al (2020). "Assessment of Community Knowledge, Attitude and Practice towards Rabies in Mersa Town, Amhara Regional State, Ethiopia". *International Journal of Research Studies in Microbiology and Biotechnology (IJRSMB)*, vol. 6, no. 2, pp. 6-13, 2020. Available: DOI: <http://dx.doi.org/10.20431/2454-9428.0602003>

Copyright: © 2020 Authors. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.