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Assessing the Public's Perception of Major Zoonotic Diseases Around Durbete City, Amhara, Ethiopia

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Abstract: Zoonoses are infectious diseases that are transmitted from animals to humans. Studying communities' knowledge, perceptions and practices related to zoonoses is crucial for effective control and prevention. This study aimed to assess the knowledge, perceptions and practices of respondents on zoonoses and the associated risk factors in western Amhara region in and around Durbete town, Ethiopia using a face-to-face interviewing technique. Zoonotic diseases, such as rabies, anthrax, bovine tuberculosis and brucellosis pose a direct threat to health and livelihoods in the communities where they occur. A questionnaire-based cross-sectional study was conducted from September 2023 to December 2024 around Durbete city, North West, Ethiopia. About 384 randomly selected human populations were interviewed comprising farmers, students, jobless, government employees and self-employees. Out of the 384 respondents interviewed, 67.4 % of them were rural, 32.6% were urban residents and also 77.1% and 22.9% of participants were male and female respectively.33.3% of respondents had got information from more than one source and only 14.3% and 5.7% got from only school and media respectively. The study revealed that about 79.9 % of respondents were heard about zoonosis but not the remaining heard. 84.6% of the respondents had knowledge about rabies followed by anthrax (15.4%), bovine tuberculosis (14.3%) and brucellosis (11.7%). From these respondents 84.1% indicated that disease could transmit from animal to human while only 17.4% responded disease could transmit from human to animal. Respondents replied that infected animal bite (86.5%) and contact with saliva (61.2%) were important for mode of rabies disease transmission. In the study area, 72.7% of respondents consumed raw meat and milk and also 67.9% of participants were vaccinated with their animals. In conclusion, this study demonstrated that the community awareness about zoonotic disease was not enough. Therefore, the government and concerned bodies should work together to raise the awareness of the public about the importance of zoonotic disease.

Key words: Awareness · Community · Durbete · Zoonotic Disease

INTRODUCTION

Ethiopia is one of the leading countries in livestock resources in Africa. The relationship between animals and their owners is very close and consumption of raw animal products is a welcoming tradition. Livestock of different species usually share common grazing lands. Moreover, there is a condition in which animals and humans share the same residences. Such conditions play a significant role in the transmission of zoonotic diseases between animals and humans [1]. Animals play a central role in the livelihoods and welfare of humans. More than a billion people worldwide are dependent on livestock for their livelihoods [2]. Animals are a source of nutrient-dense foods that are essential to human health and nutrition when appropriately used [3]. The link between humans, animal populations and the surrounding environment is very close in many developing countries where animals provide transportation, draught power, fuel, clothing and sources of proteins. In the absence of proper care, this linkage can lead to a serious risk to public health with huge economic consequences [4]. Zoonoses diseases are those diseases and infections that are naturally transmissible between vertebrate animals and humans [5], with or without arthropod intermediates are among the most frequent risks to which mankind is

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exposed. In addition, zoonoses like Rabies; Brucellosis; bovine tuberculosis Cysticercosis, Taeniasis and Anthrax are yet uncontrolled diseases [6] which need the attention of veterinary public health services. Zoonosis constitutes a diverse group of viral, bacterial, fungal and parasitic diseases with a variety of animal reservoirs, including wildlife, livestock, pet animals and birds [7]. Across the globe, zoonosis is most impactful on poor livestock workers and has caused an estimated 2.4billion cases of illness and 2.7million deaths in humans per year [8]. Today in both developing and developed countries, several new zoonoses have emerged [9].In developing countries, there is a high risk of zoonotic disease outbreaks causing high morbidity and mortality, because of several factors Poor unsanitary living conditions in close contact with animals, combined with a limited understanding of the role of domestic animals and the by products in the transmission of zoonotic disease [7] are major drivers. In addition, weak collaboration between medical and veterinary services, adequate health service coverage and complex diagnostic tests to confirm their presence are other challenges in developing countries [10, 11]. The zoonotic disease can be spread in a variety of ways, though, direct contact, by contact with inanimate objects that harbor the disease and by oral ingestion [12]. Thi causes mortality and morbidity in people, while also imposing significant economic losses in the livestock sector. Their burden tends to fall most heavily on poor societies [13]. These losses encountered by the food animals are lowering the productivity of the animal and the death of the animal. These losses affect the economy of the human beings. Therefore, today infectious diseases are not only a health issue; they have become a social problem with tremendous consequences for the well-being of the individual and the world we live in Gracey et al. [14]. They have both direct and indirect effects on livestock health and production [15]. Direct effect occurs as a lowering productivity of the animal and death of the animal. Indirect effects occur as a result of the risk of human disease, the economic impact on livestock producers through trade barriers, the costs associated with control programs, the increased cost of marketing produce to ensure it is safe for human consumption and the loss of markets because of decreased consumer confidence [16]. Since zoonoses can infect both animals and humans, the medical and veterinary communities should work closely together in clinic, public health and research settings. However, most patients do not view veterinarians as a source of information for human health [17]. But, success in the preventing and controlling of major zoonoses depend on the capability to mobilize resources in different sectors and on coordination, especially, between national (or international) veterinary and public health services [1].

According to the various studies conducted in Ethiopia, different types of zoonotic diseases are reported from different areas of the country. Among this, sporadic occurrence of anthrax in cattle and other domestic animals including man has been reported in different parts of the country [18]. WHO [19] also reported, that rabies is a widespread zoonotic disease that is found on all continents, but more than 95% of human deaths occur in developing countries like Asia and Africa. The awareness of the community towards common zoonotic diseases plays an important role for the prevention and control of life cycle and transmission of these diseases to the different arrays of their hosts, the risk factor, prevention and control of zoonotic disease are crucial steps towards the development and implementation of appropriate disease prevention and control steps [20]. In our study area there is migration of animals and people, slaughtering animals in unofficial places and sharing by more people and the cooperation between veterinary and public health services are limited. So these reasons make it important to assessing the knowledge and attitude of the community on major zoonotic disease around Durbete city.

MATERIALS AND METHODS

Study Area: The study was conducted around Durbete city from September 2023 to December 2024, the city of north Achefer woreda, in north gojjam zone, Amhara Regional State, located at 11°33'N latitude and 36°16'E longitude at about 518km North-West of Addis Ababa. The area has middle altitude ranges from 1500 - 2300 meters above sea level with an average annual rain fall ranges from 1200-1600mm. The mean annual temperature of the study area is 23°C and the population of Durbete city is about 26500 according to the 2022 Ethiopian statistics service. In addition, the study area had a rich animal population according to the South Achefer Woreda Animal Resource Development Office.

Study Population and Sample Size: The study participants were Durbete city populations comprised of different randomly selected communities including students of different educational levels (elementary, high schools, colleges), jobless, farmers, government and

self-employees. The study was tried to include all kind of society living in the city and its surroundings. Additionally for strengthening the finding I include responses from public heath office and veterinarians about zoonotic disease prevention and control activities. The sample size of the study population was calculated according to Thursfield [21] using 95% confidence interval and 0.05 absolute precision.

$$n = \frac{1.96^2 P_{exp}(1 - P_{exp})}{d^2}$$

where:
n; required sample size,
P_{exp}; Expected prevalence = 50%
d^2; Desired absolute precision = 5%

According to the above values and formula, the sample size of this study was calculated to be 384.

Study Design and Sampling Method: A questionnaire based cross-sectional study design was employed from September 2023 to December 2024 to assess the awareness of the community on zoonotic diseases. Randomly sampled respondents were stratified based on their age and sex differences, occupational status, religion and educational levels. An organized open- and close-ended (semi-structured) questionnaire was prepared and conducted on target respondents to look on the awareness of the public on zoonotic diseases, that is, rabies, tuberculosis, anthrax and brucellosis. Respondents were selected during questionnaire administration in different parts of the town and youth surrounding kebelle.

Data Collection Procedure: Data was collected using questionnaires and interviews. The questionnaire was developed after reviewing relevant literature and publications and it was prepared in English and translates to local language, Amharic. The questionnaire includes sociodemographic.livestock characteristics, personal knowledge of zoonotic disease transmission and prevention. The questions were focus on evaluated the perception of the respondents about zoonotic diseases.

Study Design and Sampling Method: A questionnaire-based cross-sectional study were collected and separately entered into a MS-Excel sheet and later transferred and analyzed using SPSS 20 version (2010), using descriptive statistics including chi-square for possible explanation of associations. P-value of less than 0.05 was considered to be significant at 95% level of confidence interval.

RESULTS

Demographic Characteristics of the Respondents: About 384 respondents responded to the questionnaire which comprised of different age groups, sex, religion, educational level and occupational status. Accordingly, More than half [77.1%] of the interviewed were males and that of females were (22.9%). All the study participants were categorized under different age groups, religion, educational states and occupation. Concerning age group, (45.8%) of the study participants were between 15-30 years old. The majority of the respondents (93.2%) were Orthodox followed by Muslim (6.5%) and Protestant (0.3%). Regarding educational status, 32.6% of the participants had completed secondary school, 7.6% of them where had Degree and above and 12.0% were illiterate. From the total respondents about 22.7% were government employees, 24% farmers and 27.3% were self-employees.

Respondent's Knowledge of Zoonotic Disease, Transmission and Prevention: The majority of the respondents 79.9% had heard about zoonosis while 20.2% of respondents never heard about zoonosis. The study revealed that 84.6%, 15.4%, 14.3% and 24.311.7% of respondents had heard about rabies, anthrax, bovine tuberculosis and brucellosis respectively. The sources of information for the respondents were 14.3%, 12.2%, 9.1%, 5.7% and 1.8% respondents got information from school, health professional, written material, media and only veterinarians respectively. About 33.3% of respondents get information about zoonotic diseases from more than one source. Majority responded dogs (55.9%), cattle and shoat (6.5%), cats (2.9%) and equine (0.8%) were important animals for transmission of disease to human being while 18.5% responded that all animals responsible for transmission of disease but about 15.4% of them were not know which animals transmit disease.

The results of the current study regarding the perceptions of respondents on the transmission of zoonotic disease were through inhalation, contact with infected animals, consumption of raw meat and milk and bite of infected animals were mentioned by 9.1%, 29.9%, 33.1% and 77.3% of respondents respectively, however 10.7% of respondents showed they didn't know mode of transmission. The modes of transmission of rabies perceived by respondents were bites of rabid dog, contact with saliva and inhalation were indicated by 86.5%, 61.2% and 3.4% respectively. But only 4.9% respondents didn't

Table 1: Socio-Demographic Characteristics of the Respondents

Characteristics		Frequency	%
Sex	Male	296	77.1
	Female	88	22.9
Residence	Urban	125	32.6
	Rural	259	67.4
Age (in years)	Young	176	45.8
	Adult	161	41.9
	Old	47	12.2
Religion	Orthodox	358	93.2
	Muslim	25	6.5
	Protestant	1	0.3
Educational Level	Degree and above	29	7.6
	Diploma	131	34.1
	Secondary	125	32.6
	Elementary	53	13.8
	Illiterate	46	12.0
Occupation	Jobless	63	16.4
	Student	37	9.6
	Farmer	92	24
	Government Employee	87	22.7
	Self-employee	105	27.3

Table 2: Knowledge of the Respondents on Zoonotic Disease

General parameters		Frequency	%
Ever heard about zoonosis	Yes	307	79.9
	No	77	20.1
Source of information	Only Friends	15	3.9
	Only Written material	35	9.1
	Only Health professionals	47	12.2
	Only Media	22	5.7
	Only School	55	14.3
	Only veterinarian	7	1.8
	More than one source	128	33.3
	Not heard about zoonosis	75	19.5
Which zoonotic disease They heard	Anthrax	59	15.4
	Rabies	325	84.6
	Brucellosis	45	11.7
	Tuberculosis	55	14.3
	I don't know	41	10.7
Animals that transmit disease to humans	Dogs only	215	55.9
	Equine only	3	0.8
	Cat only	11	2.9
	Cattle and shoat only	25	6.5
	All animals	71	18.5
	I don't know	59	15.4
Mode of transmission of zoonotic disease	Consumption raw meat and milk	127	33.1
	Contact with infected animals	115	29.9
	Inhalation	35	9.1
	Bite of infected animals	297	77.3
	I don't know	41	10.7
Mode of transmission Of anthrax	Contact with infected animal	97	25.3
	Consumption of raw meat	147	38.3
	Inhalation	23	6.0
	I don't know	178	46.4
Mode of transmission	Contact with saliva	235	61.2
Of rabies	Bite of rabid animals	332	86.5
	Inhalation	13	3.4
	I don't know	19	4.9
How zoonotic disease Can be prevented	Avoid contact with infected animals	113	29.4
	Avoid eating raw meat	187	48.7
	And milk		
	Washing hands after handling	157	40.9
	Vaccinate animals	254	66.1
	I don't know	27	7.0

Table 2: Continued

Can disease transmit from animal to human	Yes	323	84.1
	No	29	7.6
	I don't know	32	8.3
Can disease transmit from human to animal	Yes	67	17.4
	No	165	43.0
	I don't know	152	39.6
Do you think zoonotic disease can be prevented	Yes	275	71.6
	No	61	15.9
	I don't know	48	12.5
Do you consume raw meat and milk	Yes	279	72.7
	No	105	27.3
What you do for infected person	Go to hospital	327	85.2
	Using traditional Medicine	57	14.8
Ever vaccinate your animals	Yes	261	67.9
	No	123	32.0

Table 3: Relationships between awareness about zoonotic disease and risk factors among study respondents of Durbete town

		Ever heard about Zoonotic disease		
Risk factors		Yes	No	p-value
Age of respondent	Young	147(83.5%)	29(16.5%)	0.036
	Adult	151(93.8%)	10(6.2%)	
	Old	43(91.5%)	4(8.5%)	
Sex of respondent	Male	265(89.5%)	31(10.5%)	0.624
Educational Level	Female	79(89.8%)	9(10.2%)	
	Degree and above	29(100%)	0(0%)	
	Diploma	127(96.9%)	4(3.1%)	
	Secondary	112(89.6%)	13(10.4%)	0.000
	Elementary	43(81.1%)	10(18.9%)	
	Illiterate	31(67.4%)	15(32.6%)	
Occupation	Jobless	55(87.3%)	8(12.7%)	0.000
	Student	30(81.1%)	7(18.9%)	
	Farmer	70(76.1%)	22(23.9%)	
	Government employee	84(96.6%)	3(1.7%)	
	Self-employee	95(90.5%)	10(9.5%)	
Residence	Urban	105(84%)	20(16.00)	0.000
	Rural	215(83.0%)	44(17.0)	

- % with in age, sex, educational level, occupation and residence of respondents

know rabies transmission while 25.3% and 38.3% of responders were said contact with infected animal and consumption of raw meat were anthrax modes of transmissions. The present study also revealed that about 66.1%, 48.7% and 29.4%respondents were replied that vaccinating animals, avoiding eating raw meat and milk and avoid contact with infected animals were important tools for disease prevention measures respectively while 7.0% respondents were having no idea for preventive measure.

Of all respondents, about 84.1% believed that zoonotic disease can transmitted from animal to human and 17.4% of respondents had perception as it can transmit from human to animal. However, 7.6% of respondents didn't know whether it can be transmitted from animal to human or not. 43.0% respondents were said disease can't transmit from human to animals. Among surveyed respondents. 71.6% of them had perception of zoonotic disease can be prevented and 15.9% responded that disease cannot be prevented. However, 12.5% of respondents didn't know whether it can be prevented or not. Among all respondent 67.9% had vaccinated their animals against zoonotic disease but 32.0% of them they did not vaccinate their animals. Out of 384 respondents, 72.7 % respondents of the study area were consuming raw meat and milk and the remaining 27.3% of respondent were not consuming raw meat and milk. About 85.2% of respondents said, they brought the infected person to hospitals and 14.8% of them were used traditional medicines.

Relationships between awareness about zoonotic disease and risk factors among study respondents of study area:

Major determinant factors affecting people's knowledge about zoonotic disease (Table 3). There was significant association between awareness about zoonotic disease and age, education states, occupation and residence of respondents ($p<0.05$) but there was no any association between sex and zoonotic disease awareness in the respondents ($p=0.624$ which was $p>0.05$). Respondents with government employee had good awareness about zoonotic disease.

DISCUSSION

The present study was conducted to assess the knowledge, perceptions and practices of respondents regarding zoonotic disease and associated risk factors, because the problem of zoonotic disease is a global health concern. Over zoonotic pathogens are twice as likely to be associated with emerging diseases than non-zoonotic pathogens [22]. The findings of this study had a significant association ($p<0.05$) between awareness about zoonotic disease and some risk factors (age, education state, occupation and residence) but there was no association between sex and zoonotic disease awareness in the respondents ($p>0.05$). According to the present study, the Age group of adults and old (Table 3) had a good awareness of zoonotic disease. The statistically significant difference ($p<0.05$) among age groups might be due to increased reading habits as age increases and they had more awareness about the disease through experience. The other factor that was identified to be significantly associated ($p=0.000$) with awareness of zoonotic disease was educational status, where higher levels of education were associated with higher knowledge scores. All respondents with first degree and above education levels had good awareness of zoonotic disease. The possible explanation could be educated person would have better information access and can easily understand the disease. This result is also supported by the result of the study conducted in Debretabor [23] and Bahirdar [24].

The present study revealed that, 79.9% of the respondents heard about zoonotic disease. This finding had less as compared to the study from Addis Ababa and Bahirdar where all respondents (100%) and (89.9%) heard about zoonotic disease [24] respectively. This could be due to better ability and practice of reading written information about zoonosis in Addis Ababa and Bahir Dar than Durbete and the difference in the overall awareness between the two study sites for the common zoonotic diseases could be due to variations in the living style between the two settings. Regarding the source of information, 33.3% of participants reported more than one source as their primary source of information, followed by school (14.3%), health professional (12.2%), written material (9.1%), media (5.7%), friends (3.9%) and a low number of respondents reported veterinary health professionals as their source of information (1.8%). Walelign A. and Lamsigen B., Also reported the same source of information like family and friends as well as from school or more than one sources (14.3%, 15.6% and 26.0% respectively) in and Around Bahirdar town, Amhara region, Ethiopia. In contrast to the present study, Girma *et al.* [26] reported electronic media like radio and television as a major source of information among high school students in Addis Ababa, Ethiopia. This might be due to the age group of respondents as high school students usually spent more time on electronic media. The study indicated that the majority of respondents had high knowledge of rabies (84.6%) but lower knowledge on anthrax, bovine tuberculosis and brucellosis (15.4%, 14.3% and 11.7%) respectively. These findings were lower than the findings of Gracey *et al.* [14] in Addis Ababa, who reported that all respondents mentioned rabies (100%), followed by anthrax (94.3%), bovine tuberculosis (88.5%) and brucellosis (49.5%) but higher than the reports of Walelign and Lamesgin [24] in and around Bahirdar town who reported rabies(83.3%). The possible reason for the variation in knowledge levels of respondents in different parts of the country could be the difference in access to information and education between urban and rural areas [27]. Urban areas such as Addis Ababa may have better access to health care facilities, veterinary services and educational resources, leading to greater zoonotic knowledge than that of the inhabitants of rural or smaller cities such as the current study area [28]. In the other study reported by Tesfaye *et al.* [9] indicated that rabies (97.1%) followed by taeniasis (83.4%), anthrax (55.4%) and bovine tuberculosis [29.1] in Jimma, Southwestern, Ethiopia. This may be due to variation the study area, educational level of respondents and information access of the two study areas.

The most known mode of zoonotic diseases transmission among the respondents were bite of infected animal (77.3%), consumption of raw meat and milk (33.1%), contact with infected animals (29.9%) and inhalation

(9.1%). This finding had high level awareness about mode of transmission as compared with Amenu *et al.* [29] reported contact with sick animals as modes of transmission of zoonotic disease responded by 6.3% respondents in Arsi-Negele District, Ethiopia and had lower level awareness about mode of transmission as compared with Walelign A. and Lamesgin B., reported contact and inhalation as mode of transmission of zoonotic disease answered by 46.1% and 32.3% respondents respectively in and around Bahirdar town, Ethiopia. In another study, participants indicated inhalation (94.1%), contact (2.2%) and ingestion of animal products as modes of transmission of zoonotic disease in Addis Ababa, Ethiopia [25]. The differences in findings perception among respondents can be ascribed to a combination of factors such as education level, residence, availability of information sources, income and cultural beliefs and practices.

In the present study the majority (84.1%) of respondents explained that disease can be transmitted from animal to human while other respondents (17.4%) believed that zoonotic disease can be transmitted from human to animals. This figure was found to be lower when compared to Gizachew *et al*. [30] indicated that about 93.2% respondents from Asella, Eastern Arsi Zone, Ethiopia agreed with idea disease can transmitted from animal to human but higher when compared to Tesfaye et al., who reported that 15.6%respondents from Manna and Limmukosa District of Jimma Zone had an awareness that disease can be transmitted from humans to animals. The difference in overall awareness among different studies for the common zoonotic disease could be due to variations in these findings showing the presence of a knowledge gap from place to place and between city and rural residents.

The study revealed that the majority of respondents believed that dogs (55.9%), cattle and shoat (6.5%), cats (2.9%) and equine (0.8%) are important animals that can serve as a source of common zoonotic disease. This finding is lower when compared with Kassa *et al*. [31], who reported that dogs (78%), cattle (27%) and cats (13.86%) of respondents are important animals for disease transmission.

On the other hand, mods of rabies transmission were bites of rabid animal, contact with saliva and inhalations were reported by 86.5%, 61.2% and 3.4% respectively. In contrast to this finding Awoke *et al*., also reported that biting (57.8%), contact with saliva (30.2%) and inhalation (7.8%) in Debretabor, Northwest Ethiopia. The variation among the community awareness could be due to different source of information in study site. Respondents also showed anthrax transmission via raw meat consumption (38.3%), contact with infected animals (25.3%) and inhalation (6.0%).This result is lower than the work of Walelign and Lamesgin [24] who reported that transmission through the consumption of raw meat and contact with infected animals were mentioned by 50% and 30.2% of the respondents respectively, but higher with the finding of Tesfaye *et al*. who listed that contact and inhalation transmission routes were only mentioned by 14.3% and 2.3% of respondents, respectively. The differences observed could possibly arise from the differences in the study sites and strata of study groups mainly their educational status.

Regarding the food consummation habits of respondents, 72.7% respondents of the study area had usual practice of consuming raw meat and milk. This result little disagree with the finding of Tesfaye *et al.* [9], who reported that raw meat consumption was 69.1% of respondents in Jimma, Ethiopia. In Hailu *et al.* [32] also recorded that about 36.8% and 9.2% of the respondents consume raw milk and meat respectively. The difference between the two study sites for consumption of raw food of animal origin could be due to variations in the living style and the culture of the community from different locality. This result shows there is high culture of consuming raw meat and milk in the study area and as Ethiopia.

In terms of vaccination, 67.9% respondents study vaccinated their animals against zoonotic disease. Almost similar result was reported (69.5%) respondents vaccinate their animals [34]. In contrast to this, Tesfaye *et al*. [9] and Walelign and Lamesgin [24] indicated only 25.6% and 33.3% of respondents reported that they were vaccinating their animals respectively. This difference might be because of the fact associated with the source of information determining the appropriateness of the knowledge transferred.

In the present study, a total of 66;1%, 48.7%, 40.9% and 29.4% responded as they prevented zoonotic disease by vaccinating animals, avoid eating raw milk and meat products, washing hands after handling animals and avoid contact with infected animals respectively. This had higher finding when comparing with Tirsit *et al*. [34] which reported that 4.6% of the respondents from Mana and Limmukosa District of Jimma zone, Ethiopia where vaccinating their dogs against zoonotic disease. Similarly, the study reported by Amenu *et al*. [29] indicated that

cooking of animal product like meat and milk due to fear of disease transmission was reported by 33.7% and 64.3% of respondents respectively in Arsi-Negele District, Ethiopia. But this finding is lower when comparing with the finding of Walelign and Lamesgin [24] which reported that 72.4% of the respondents from Bahirdar, Ethiopia where vaccinating their animals against zoonotic disease. The preventive methods of zoonotic disease stated by respondents depend on awareness creation and other public health information services. Most respondents 85.2% of them they would take an infected person to the nearest health center; this finding is little lower than the finding of Walelign and Lamesgin [24] in and around Bahirdar, where 93.8% respondents agreed to refer health professionals in case of animal bites and 31.8% of respondents had go to traditional medicine in the study area. In contrast [35], in and around Gondar town, Ethiopia indicated that approximately 62.2% of the study participants had strong beliefs in traditional medicine. This difference may be due to variations in educational levels, respondents' perceptions of traditional medicine and health.

CONCLUSION AND RECOMMENDATIONS

In the current study, the community's overall awareness about rabies was good in the study area however; improvements are still needed on the management and treatment of the disease and proper handling of dogs. In contrast, lower knowledge of anthrax, bovine tuberculosis and brucellosis were reported in this area. This might be due to poor or absent of awareness creation activities that should have been done by medical and veterinary health care professionals of the state government. There was also knowledge gap about zoonotic disease transmission from human to animals and had high common practice of consuming raw meat and milk which exposed for zoonotic disease. Animal vaccination activity of the community was limited in the study area. Ages, educational, occupational and residence status of the respondents were the risk factors found to be significantly associated with zoonotic disease awareness in the community.

Generally, based on the above summary, the researcher recommended that the concerned body should provide periodic education to raise community knowledge on zoonotic disease and provide accurate information to targeted people and also government and concerned institutions should work hard to strengthen the contribution of public health veterinarians in the public health for better community health. Further research is needed to better understand these factors and develop targeted interventions that involve the targeted implementation of one's health approach to improve the practices of the community and to spread zoonotic-related information entirely.

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REFERENCES

1. Abdou, A., 1998. Preventing and control of zoonotic diseases. Eastern Mediterranean Health Journal, 4(2): 223-224.
2. Food and Agriculture Organization of the United Nations (FAO), 2023. -Animal production. FAO, Rome, Italy. Available from: https://www.fao.org/animal- production/en (accessed on 30 September 2023).
3. World Health Organization (WHO), 2019. Nutrition Landscape Information System (NLiS) country profile indicators: interpretation guide. 2nd Ed. WHO, Geneva, Switzerland, 59 pp. Available at: https://www.who.int/publications/i/item/9789241516952 (accessed on 30 September 2023).
4. WHO, 2004. Water borne Zoonoses, Identification, Causes and control. Availableat: http://www.who.int/water_sanitationhealth/diseases/zoonoses. Accessed in 15 October 2016.
5. Wubshet, Z., E. Wario and A. Tehetena, 2018. Assessment of community awareness on common zoonotic disease in and around Yabello district of oromia regional state, Ethiopia, Multidisciplinary Advances in Vetrinary Science, 2: 388-394.
6. WHO, 2002. Future trends in Veterinary public health Technical report series. 907, Report of a WHO Study Group, Geneva, pp: 1-7.
7. Nkuchia, M., L. Ruth, A. Chris and V. Henriette, 2007. Infectious disease surveillance. Blackwell Publishing. USA, pp: 246-248.
8. CSA, 2007. Population and Housing Census 2007 Report, National. [ONLINE] Available at: http://catalog.ihsn.org/index.php/catalog/3583/download/50086.

9. Tesfaye, D., D. Fekede, W. Tigre, A. Regassa and A. Fekadu, 2013. Perception of the public on the common zoonotic diseases in Jimma, Southwestern Ethiopia. International Journal of Medicine and Medical Sciences, 5(6): 279-285.
10. Le Jeune Kersting, Zoonoses: an occupational hazard for livestock workers and a public health concern for rural communities, Journal of Agricultural Safety and Health, 16(3): 161-179.
11. Yasmeen, N., A. Jabbar, T. Shah, L. Fang, B. Aslam, I. Naseeb, F. Shakeel, H.I. Ahmad, Z. Balich and Y. Liu, 2022. One health paradigim to confront zoonotic health threats:apakistanprospective, frontiers in microbiology.12, https://doi.org/10.3389/fmicb.2021.719334, 719334
12. Kevin, D. and C. Nancy, 2009. Zoonozic Disease of Cattle.Virginia Cooperative Extension programs publication, pp: 4000-4600.
13. WHO, 2005. The Control of Neglected Zoonotic Diseases. Report of a Joint WHOMeeting with the participation of FAO and OIE. Geneva, September 2005. Available at;http://whqlibdoc.who.int/publications/2006/9789 2415eng.pdf.Accessed in 20 October 2016.
14. Gracey, F., O. Collins and R. Huey, 1999. Meat hygiene, 10th edition, London, Bailliere Tindall, pp: 223-260.
15. Smits, L. and J. Cutler, 2004. Contributions of biotechnology to the control and prevention of brucellosis in Africa. African Journal of Biotechnology, 3: 631-636.
16. McDermott, J. and M. Arimi, 2002. Brucellosis in sub-Saharan Africa: epidemiology, control and impact of Veterinary Microbiology, 90: 111-134.
17. Grant, S. and C. Olsen, 1999. Preventing zoonotic diseases in immunocompromised persons: the role of physicians and veterinarians. Emerging Infectious Disease, 5: 159-163.
18. Shiferaw, G., 2004. Anthrax in Wabessa Village in Dessie Zuria District, Ethiopia. Revue Scientifique Technique, 23(3): 951-956.
19. WHO, 2011. Rabies, Media Center, fact sheet number 99. Available at:http://www.who.int/mediacentre/ factsheets/fs099/en/. Accessed in 15 October 2016.
20. Almayehu, G., G. Mamo, H. Desta, B. Alemu and B. Weil and Knowledge, attitude and practice to zoonotic disease risks from livestock birth products among small holdercommunities in Ethiopia, One Health. (2921) 12: 1-12.
21. Thursfield, M., 2005. Survey in Veterinary Epidemiology. 2nd editionUk: Blackwell Science, Limited, Cambridge, pp: 297-302.
22. Otte, J. and U. Pica-Ciamarra, 2021. Emerging infectious zoonotic disease: the neglectedrole of food animals, One health. 13, no, 100323, 23527714, https://doi.org/10.1016/j.onehlt.2021.100323.Ethiopia PLoS ONE. 2021; 16(12): e0262032. https://doi.org/10.1371/journal. pone.0262032
23. Awoke, A., A. Ashenafi, D. Samuel and A. Birhanu, 2015. Assessment of Knowledge, Attit ude and Practice on Rabies in Debretabor town, South Gondar, North west Ethiopia. International Journal of Basic and Applied Virology, 4(1): 28-34.
24. Walelign, A. and B. Lamesgin, 2019. Study on Assessment of Public Awareness Towards Common Zoonotic Diseases in and Around Bahir Dar Town, Amhara Region, Ethiopia.European Journal of Applied Sciences, 11(2): 65-72.
25. Kidane, A., D. Sifer, M. Aklilu and M. Pal, 2015. Knowledge, Attitude and Practice towards Human and Bovine Tuberculosis among High School Students in Addis Ababa, Ethiopia. International Journal of Livestock Research, 5(1): 1-11.
26. Girma, S., G. Zewde, K. Tafess and T. Jibat, 2012. Assessment of awareness on food borne zoonoses and its relation with veterinary public health services in and around Addis Ababa, Journal of Public Health and Epidemiology, 4(2): 48-51.
27. Mekonnen, S.A., A. Gezehagn, A. Berju, B. Haile, H. Dejene, S. Nigatu, *et al*., Healthand economic burden of foodborne zoonotic diseases in Amhara Region.
28. Yimer, E., A. Mesfin, M. Beyene, A. Bekele, G. Taye, B. Zewdie, *et al*., 2012. Study onknowledge, attitude and dog ownership patterns related to rabies preventionand control in Addis Ababa, Ethiopia. Ethiop Vet. J., 16(2): 27-39.
29. Amenu, K., E. Thys, A. Regassa and T. Marcotty, 2010. Brucellosis and Tuberculosisin Arsi-Negele District, Ethiopia: Prevalence in Ruminants and People's Behavior towards Zoonoses, 28(4): 205-210.
30. Gizachew, A., K. Niraj, T. Tsegay and A. Hailelule, 2016. Study on Assessment of Community Awareness towards Common Zoonotic Diseases in and Around Asella, Eastern Arsi Zone, Ethiopia. International Journal of Livestock Research, 6(5): 2-3.

31. Kassa, D., A. Birhan, F. Yeshwas and B. Tsegaye, 2024. Knoweldge, attitude and prevention practice towards coomon zzonotic disease in and aroun Bahirdar city, North Weter Ethiopia Transboundary and emerging disease, volume, issue1/6642766.20030202 4, https://doi.org/10.1155/2024/6642766
32. Hailu, F., H. Dejene, Y. Akalu and Y. Alemu, 2021. Knowledge and practice for prevention of bovine tuberculosis and its erivers among HIV positive people in Bahir dar city public hospitals, Ethiopia, HIV/AIDS-Research and palliative care 13, 1025-1034.
33. Abdulaziz, A., B. Bantayehu, T. Muhidin, A. Sali and A. Lencho, 2024. Associations of community knowledge, perceptions and practices related to zoonotic disease with sociodemographic factors in and around Chiro Town, Eastern Ethiopia. One Health Outlook 6:10 https://doi.org/10.1186/s42522-024-00105-9.
34. Tirsit, K., D. Benti, A. Fanta and T. Worku, 2013. Farmers awareness and practices on rabies, bovinetuberculosis, Taeniasis and brucellosisin Mana and Limmukoso District of Jimma Zone, Southern Ethiopia. Journal of World Applied Science, 23(6): 782-787.
35. Ali, A., E.Y. Ahmed and D. Sifer, 2013. A study on knowledge, attitude and practice of rabies among residents in Addis Ababa, Ethiopia. Ethiop Veterinary J., 17(2): 19-35.