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Original Research Article

Knowledge, attitudes and practices related to dog bite and its management among adults in rural Maharashtra with reference to their literacy status: a cross sectional study

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ABSTRACT

Background: In India, 97% of human rabies is transmitted by dogs. Rabies is 100% fatal but 100% preventable by vaccination. In rural community, there exists a considerable gap in knowledge, attitudes and practices (KAP) related to dog bite and its management. So, study was planned to assess same with reference to literacy status among adults.
Methods: A cross-sectional study was conducted in rural field practice area of Rajiv Gandhi medical college in Maharashtra during April to June 2023. Sample size was estimated. Simple random sampling technique was used to select the subjects. Data was collected by personal interview using pretested questionnaire. Descriptive and inferential statistics were applied. The statistical level of significance was fixed at $p<0.05$.
Results: Of the 254 subjects interviewed, 208 (81.89%) were literate and 46 (18.11%) were illiterate, 224 (88.19%) subjects knew about rabies disease of which 190 (91.35%) were literate ($p<0.05$), 208 (81.89%) subjects mentioned that the dog bite leads to rabies of which 178 (85.58%) were literate ($p<0.05$), 172 (67.72%) said rabies can be prevented through vaccination of which 151 (72.60%) were literate ($p<0.05$), 179 (70.47%) said washing dog bite wound can reduce chance of rabies of which 158 (75.96%) were literate ($p<0.05$), 88 (34.65%) subjects have given history of dog bite. Literate subjects were having better knowledge, positive attitudes and healthy practices related to dog bite and its management.
Conclusions: The gap in knowledge, attitude and practices about dog bite and its management among the subjects can be reduced by increasing literacy status, health education and focusing on communication services in rural area.

Keywords: KAP, Dog bite, Rabies, Management

INTRODUCTION

Rabies is an ancient disease continues to be a major public health problem all over the world. It is an acute, progressive, and incurable viral encephalitis caused by a neurotropic RNA virus in the family *Rhabdoviridae*, genus *Lyssavirus*. Rabies, a zoonotic disease is one of the serious public health problems in India. This disease is reported throughout the year and in all parts of the country excluding the water-locked islands of Lakshadweep and Andaman and Nicobar. Rabies which has 100% fatality is 100% preventable by vaccination in animals and people but still, it remains an under-reported and neglected zoonosis and affects the world's poorest and underserved communities. In India, 97% of human rabies is transmitted by dogs, followed by cats (2%), jackals, mongooses and others (1%).[1] The lack of awareness about dog bite related rabies in the rural area in India is a major challenge for controlling the incidence of diseases in humans. India has the world's highest number

of dog bite related rabies deaths, most of whom are people of lower socio-economic background. A gross lack of awareness about rabies in rural area is one of the factors that lead to high mortality from the disease. Although mortality can be prevented through prompt management of dog bite.[2]

Rabies is a neglected zoonotic tropical disease that usually affects the poorest communities. A huge proportion of deaths due to rabies occur in Asia and Africa. India is reported to have the highest incidence of rabies. India is one of the countries that has the highest population of stray dogs in the world. With these stray dogs being unvaccinated, Indians are at high risk of getting rabies. In India, West Bengal reports the highest number of rabies cases every year.[3] Awareness of dog bite-related rabies in rural population of developing countries, including India, can lead to reduction in mortality from dog bite. Dogs are responsible for rabies virus transmission to humans in up to 99% of cases and pose a potential threat to people all over the world. Rabies is one of the neglected tropical diseases, mainly affecting poor and vulnerable communities living in remote rural areas. The widespread faith in traditional healing practices for the treatment of dog bite injuries undermines the importance of seeking post exposure prophylaxis. Despite wide recognition of the role of stray dogs in the transmission of rabies in rural human population, the attitude of the late towards this reservoir remains influenced by the prevailing social, cultural and religious beliefs. Many myths and false beliefs overshadow the correct practice of wound management and further treatment which is of proven efficacy.[4]

Rabies is a fatal disease of the central nervous system transmitted through the bites of warm-blooded animals. One of the effective methods of controlling rabies is by interventions to limit the number of dog bites, the most common source of transmission of rabies to humans.[5] Rabies is a viral zoonosis and is endemic in India. In up to 99% of cases, domestic dogs are responsible for rabies virus transmission to humans. About 30% of the victims of dog bite are children under the age of 15 years.[6] India accounts for 35% of global burden of rabies. The incidence of rabies has remained stagnant and grossly under-reported in India since a decade.[7] In view of this, a community based cross-sectional study was planned. The objective of this study was to assess the KAP related to dog bite and its management among adults with reference to their literacy status in rural area of Maharashtra.

METHODS

This is a community based cross-sectional study conducted in a rural field practice area of Rajiv Gandhi medical college in Maharashtra during April to June 2023. Necessary permissions and approvals were obtained. The study subjects were adult residents i.e. aged 18 years and above, of the rural field practice area. Inclusion and exclusion criteria were defined. Adult residents present in the house at the time of survey and willing to participate in the study were included as study subjects. The sample size was estimated on the basis of percentage of population who heard about rabies disease i.e. 93.4% observed by Dutta et al in their study in rural community in Maharashtra.[1] The sample size was calculated for 95% confidence interval with 5% margin of error. The calculated sample size was 99. However, 254 respondents were interviewed in this study to get the better picture of the health problem.

Sampling frame was obtained from the local authority. Simple random sampling method was used here. The questionnaire was made in English after literature search and wide consultation taken from the experts. The questionnaire was pretested in the field. It consists of 36 close ended questions covering domains of KAP related to dog bite and its management. Data was recorded in the proforma after obtaining verbal informed consent from the subjects. Statistical analysis of the data was done using Microsoft excel. Descriptive statistics such as percentages and frequencies were used. Chi-square and standard error of difference between two proportions, tests of significance were applied. The statistical level of significance was fixed at $p<0.05$. The results were represented in Tables. The results of the present study were compared with the results of other studies.

RESULTS

The 254 adults were interviewed with reference to dog bite, its management and about rabies, of which 129 (50.79%) were males and 125 (49.21%) were females, 240 (94.49%) were in the age group of 18-58 years while 14 (05.51%) were >58 years of age, 200 (78.74%) subjects were married, 46 (18.11%) were illiterate while 208 (81.89%) were literate, 103 (40.55%) were home makers while 151 (59.45%) were employed and students. 181 (71.26%) subjects had monthly income less than 20,000 per month while the rest were earning more than this. 229 (90.16%) were from lower socio-economic class and 25 (09.84%) belonged to upper class, 175 (68.90%) subjects belonged to unitary family while 79 (31.10%) belonged to joint family, 52 (20.47%) subjects were having pet dogs, 88 (34.65%) subjects had given history of dog bite, and it was common among subjects aged 18-58 years, married and literate ($p<0.05$). Also, it is common among working subjects and students (Table 1).

Of the 254 subjects, 46 (18.11%) were illiterate while 208 (81.89%) were literate, 224 (88.19%) subjects know about rabies disease of which 34 (73.91%) were illiterate and 190 (91.35%) were literate ($p<0.05$), 208 (81.89%) subjects mentioned that the dog bite leads to rabies of which, 30 (65.22%) were illiterate while 178 (85.58%) were literate ($p<0.05$). The 198 (77.95%) subjects said rabies leads to death, of which 32 (69.57%) were illiterate and 166 (79.81%) were literate, 188 (74.02) subjects said other animal bites can lead to rabies of which 30 (65.22%) were illiterate and 158 (75.96%) were literate,

77 (30.31%) subjects were aware of symptoms of rabies of which 06 (13.04) were illiterate and 71 (34.13) were literate (p<0.05). The 172 (67.72%) said rabies can be prevented through vaccination of which 21 (45.65%) were illiterate and 151 (72.60%) were literate (p<0.05). The 68 (26.77%) subjects said rabies vaccination works before dog bite. The 218 (85.83%) subjects mentioned, rabies can be transmitted from infected person to normal person through bite. The 41 (16.14%) said rabies can spread through consumption of raw animal products. The 179 (70.47%) said washing dog bite wound can reduce chance of rabies of which 21 (45.65%) were illiterate and 158 (75.96%) were literate (p<0.05). The 132 (51.97%) subjects were aware of characteristics of rabid dog of which 08 (17.39%) were illiterate and 124 (59.62%) were literate (p<0.05). The distribution is shown in Table 2.

The 162 (63.78%) subjects said anti-rabies vaccination should be affordable of which 141 (67.79%) were literate and 21 (45.65%) were illiterate. The 93 (36.61%) mentioned that shortage of anti-rabies vaccination should not be there in the health care facility. The 191 (75.20%) subjects said one should not avail treatment from traditional healers in case of dog bite. The 188 (74.02%) subjects said victim of dog bite should take complete treatment to protect from rabies, 179 (70.47%) said dogs are social nuisance and should be caught and taken away from the locality, 156 (61.42%) participants said dogs should be sterilized as a part of prevention of rabies in the community, 159 (62.60%) subjects said all dogs are dangerous of which 19 (41.30%) were illiterate and 140 (67.31%) were literate (p<0.05). The 206 (81.10%) subjects said rabies control activities in the village should be supported of which 31 (67.39%) were illiterate and 175 (84.13%) were literate (p<0.05). The 192 (75.59%) subjects said health education to children will help to reduce the problem of dog bite in the community of which 26 (56.52%) were illiterate and 166 (79.81%) were literate (p<0.05). The 172 (67.72%) respondents said anti-rabies vaccines are safe of which 09 (19.57%) were illiterate and 163 (78.37%) were literate (p<0.05). According to 202 (79.53%) subjects, stray dogs are problem in locality of which 29 (63.04%) were illiterate and 173 (83.17%) were literate (p<0.05), 195 (76.77%) participants said every victim of dog bite should take anti-rabies vaccine of which 17 (36.96%) were illiterate and 178 (85.58%) were literate (p<0.05) (Table 3).

The 92 (36.22%) subjects were aware of dog bite management campaign which was held in their locality of which 78 (37.50%) were literate and 14 (30.43%) were illiterate, 126 (49.61%) subjects visited doctor after dog bite. 195 (76.77%) subjects are willing to receive anti-rabies vaccine after dog bite of which 29 (63.04%) were illiterate and 166 (79.81%) were literate (p<0.05). The 82 (32.28%) subjects mentioned that their neighbors were victim of dog bite. The 169 (66.54%) mentioned that they will advise their friends to visit hospital in case of dog bite. The 152 (59.84%) subjects said receiving tetanus toxoid vaccine is a part of dog bite treatment of which 17 (36.96%) were illiterate and 135 (64.90%) were literate (p<0.05), 166 (65.35%) subjects said observing concerned dog for ten days is a part of dog bite management of which 13 (28.26%) were illiterate and 153 (73.56%) were literate (p<0.05), 181 (71.26%) subjects mentioned that they will ask treating doctor to dress the dog bite wound. The 112 (53.85%) subjects mentioned, suspected rabid dog should be killed, of which 32 (69.57%) were illiterate and 80 (38.46%) were literate (p<0.05). The 227 (89.37%) subjects agreed that their nearby hospital has facility to treat cases of dog bite and rabies disease, of which 31 (67.39%) were illiterate and 196 (94.23%) were literate (p<0.05), 59 (23.23%) subjects said that villagers use home remedies to treat dog bite, of which 28 (60.87%) were illiterate and 31 (14.90%) were literate (p<0.05), 206 (81.10%) subjects said that they ask gram panchayat to take action against stray dogs in locality. Distribution is shown in Table 4.

Table 1: Socio-demographic characteristics of the study population (n=254).

Variables		Socio-demography, (n=254)		History of dog bite, (n=88)		P value
		N	%	N	%	
Age (in years)	18-58	240	94.49	82	93.18	<0.05
	>58	14	05.51	06	06.82	
Gender	Male	129	50.79	51	57.95	>0.05
	Female	125	49.21	37	42.05	
Marital status	Married	200	78.74	69	78.41	<0.05
	Unmarried	54	21.26	19	21.59	
Religion	Hindu	228	89.76	79	89.77	<0.05
	Other	26	10.24	09	10.23	
Education	Illiterate	46	18.11	12	13.64	<0.05
	Literate	208	81.89	76	86.36	
Occupation	Home maker	103	40.55	29	32.95	<0.05
	Employed + students	151	59.45	59	67.05	
Monthly income (INR)	≤20,000	181	71.26	61	69.32	<0.05
	>20,000	73	28.74	27	30.68	
Socio-economic class of family	Lower	229	90.16	77	87.50	<0.05
	Upper	25	09.84	11	12.50	

Continued.

Variables		Socio-demography, (n=254)		History of dog bite, (n=88)		P value
		N	%	N	%	
Type of family	Unitary	175	68.90	43	48.86	>0.05
	Joint	79	31.10	45	51.14	
Having pet dog	Yes	52	20.47	33	37.50	<0.05
	No	202	79.53	55	62.50	

Table 2: Knowledge of the subjects regarding dog bite and its management based on their literacy status (n=254).

Questions on knowledge	Illiterate, n=46 (18.11%)		Literate, n=208 (81.89%)		Total, n=254 (100%)	
	Yes	No	Yes	No	Yes	No
Do you know rabies disease?	34 (73.91)	12 (26.09)	190 (91.35)	18 (08.65)	224 (88.19)	30 (11.81)
P<0.05						
Do you know dog bite leads to rabies?	30 (65.22)	16 (34.78)	178 (85.58)	30 (14.42)	208 (81.89)	46 (18.11)
P<0.05						
Do you know rabies leads to death?	32 (69.57)	14 (30.43)	166 (79.81)	42 (20.19)	198 (77.95)	56 (22.05)
P>0.05						
Do you know other animals also play role in the spread of rabies?	30 (65.22)	16 (34.78)	158 (75.96)	50 (24.04)	188 (74.02)	66 (25.98)
P>0.05						
Do you know symptoms of rabies?	06 (13.04)	40 (86.96)	71 (34.13)	137 (65.87)	77 (30.31)	177 (69.69)
P<0.05						
Do you know rabies can be prevented through vaccination?	21 (45.65)	25 (54.35)	151 (72.60)	57 (27.40)	172 (67.72)	82 (32.28)
P<0.05						
Do you know rabies vaccination works before dog bite?	11 (23.91)	35 (76.09)	57 (27.40)	151 (72.60)	68 (26.77)	186 (73.23)
P>0.05						
Rabies can be transmitted from infected human to normal human through bite?	27 (58.70)	19 (41.30)	191 (91.83)	17 (08.17)	218 (85.83)	36 (14.17)
P<0.05						
Do you know rabies can spread through consumption of raw animal products?	06 (13.04)	40 (86.96)	35 (16.83)	173 (83.17)	41 (16.14)	213 (83.86)
P>0.05						
Do you know washing wound after the dog bite can reduce chance of rabies?	21 (45.65)	25 (54.35)	158 (75.96)	50 (24.04)	179 (70.47)	75 (29.53)
P<0.05						
Are you aware of characteristics of rabid dog?	08 (17.39)	38 (82.61)	124 (59.62)	84 (40.38)	132 (51.97)	122 (48.03)
P<0.05						

Table 3: Attitude of the subjects related to dog bite and its management based on their literacy status (n=254).

Attitude	Illiterate, n=46 (18.11%)		Literate, n=208 (81.89%)		Total, n=254 (100%)	
	Yes	No	Yes	No	Yes	No
Anti-rabies vaccination should be affordable	21 (45.65)	25 (54.35)	141 (67.79)	67 (32.21)	162 (63.78)	92 (36.22)
P<0.05						
Shortage of Anti-rabies vaccines should not be there in the health care facility	14 (30.43)	32 (69.57)	79 (37.98)	129 (62.02)	93 (36.61)	161 (63.39)
P>0.05						
One should avail treatment from traditional healers in case of dog bite	13 (28.26)	33 (71.74)	50 (24.04)	158 (75.96)	63 (24.80)	191 (75.20)
P>0.05						
Victim of dog bite should take complete treatment to protect from rabies	32 (69.57)	14 (30.43)	156 (75.00)	52 (25.00)	188 (74.02)	66(25.98)
P>0.05						
Dogs are social nuisance and should be caught and taken away from locality	27 (58.70)	19 (41.30)	152 (73.08)	56 (26.92)	179 (70.47)	75 (29.53)
P>0.05						
Dogs should be sterilized as a part of prevention of rabies in community	28 (60.87)	18 (39.13)	128 (61.54)	80 (38.46)	156 (61.42)	98 (38.58)
P>0.05						
All dogs are dangerous	19 (41.30)	27 (58.70)	140 (67.31)	68 (32.69)	159 (62.60)	95 (37.40)
P<0.05						
Rabies control activities in village should be supported	31 (67.39)	15 (32.61)	175 (84.13)	33 (15.87)	206 (81.10)	48 (18.90)
P<0.05						
Health education to children will help to reduce problem of dog bite	26 (56.52)	20 (43.48)	166 (79.81)	42 (20.19)	192 (75.59)	62 (24.41)
P<0.05						
Anti-rabies vaccines are safe	09 (19.57)	37 (80.43)	163 (78.37)	45 (21.63)	172 (67.72)	82 (32.28)
P<0.05						
Stray dogs are a problem in the village	29 (63.04)	17 (36.96)	173 (83.17)	35 (16.83)	202 (79.53)	52 (20.47)
P<0.05						
Every victim of dog bite should take anti-rabies vaccine	17 (36.96)	29 (63.04)	178 (85.58)	30 (14.42)	195 (76.77)	59 (23.23)
P<0.05						

Table 4: Practices related to dog bite and its management based on literacy status of the respondents (n=254).

Questions on practices	Illiterate, n=46 (18.11%)		Literate, n=208 (81.89%)		Total, n=254 (100.00%)	
	Yes	No	Yes	No	Yes	No
Was dog bite management campaign held in your village?	14 (30.43)	32 (69.57)	78 (37.50)	130 (62.50)	92 (36.22)	162 (63.78)
P>0.05						
Have you or your family members ever visited doctor after dog bite?	17 (36.96)	29 (63.04)	109 (52.40)	99 (47.60)	126 (49.61)	128 (50.39)
P>0.05						
Do you prefer to receive vaccine against rabies?	29 (63.04)	17 (36.96)	166 (79.81)	42 (20.19)	195 (76.77)	59 (23.23)
P<0.05						
Had anyone fell victim to dog bite among your neighbors and visited doctor?	14 (30.43)	32 (69.57)	68 (32.69)	140 (67.31)	82 (32.28)	172 (67.71)
P>0.05						
Will you advise your friends to visit hospital after dog bite?	28 (60.87)	18 (39.13)	141 (67.79)	67 (32.21)	169 (66.54)	39 (15.35)
P>0.05						
Do you think receiving tetanus toxoid vaccine is a part of dog bite treatment?	17 (36.96)	29 (63.04)	135 (64.90)	73 (35.10)	152 (59.84)	102 (40.16)
P<0.05						
After bite observing concerned dog for 10 days is part of dog bite management	13 (28.26)	33 (71.74)	153 (73.56)	55 (26.44)	166 (65.35)	88 (34.65)
P<0.05						
Will you ask treating Doctor to dress the dog bite wound?	31 (67.39)	15 (32.61)	150 (72.12)	58 (27.88)	181 (71.26)	73 (28.74)
P>0.05						
Does suspected rabid dog be killed?	32 (69.57)	14 (30.43)	80 (38.46)	128 (61.54)	112 (53.85)	142 (55.91)
P<0.05						
Does your area hospital have required facilities to treat cases of dog bite and rabies?	31 (67.39)	15 (32.61)	196 (94.23)	12 (05.77)	227 (89.37)	27 (10.63)
P<0.05						
Do the villagers use home remedies to treat dog bite?	28 (60.87)	18 (39.13)	31 (14.90)	177 (85.10)	59 (23.23)	195 (76.77)
P<0.05						
Do you ask gram panchayat to take action against nuisance of stray dogs in the village?	33 (71.74)	13 (28.26)	173 (83.17)	35 (16.83)	206 (81.10)	48 (18.90)
P>0.05						

DISCUSSION

In the present study, it was observed that the history of dog bite was common among subjects aged between 18-58 years, married and literate. Also, it was common among working subjects and students. The 18.11% subjects were illiterate while 81.89% were literate in this study. The 88.19% subjects know about rabies disease. 81.89% subjects mentioned that the dog bite leads to rabies. Dutta et al in their study in rural community in Maharashtra observed, the majority i.e. 93.4% subjects were aware about rabies illness and 100% correctly know that the dog is the main animal responsible for transmission of rabies in India.[1] The 77.95% subjects said rabies leads to death. 74.02% subjects said other animal bites can lead to rabies, 30.31% subjects were aware of symptoms of rabies. 67.72% said rabies can be prevented through vaccination, 26.77% subjects said rabies vaccination works before dog bite, 85.83% subjects mentioned, rabies can be transmitted from infected person to normal person through bite, 16.14% said rabies can be spread through consumption of raw animal products. The 70.47% said washing dog bite wound can reduce chance of rabies. The 51.97% subjects were aware of characteristics of rabid dog. It is observed in our study that the level knowledge about dog bite and its management was good among the literate subjects compared to illiterate subjects.

Tiwari et al observed the knowledge of the rural residents of Shirsuphal village was found to be significantly influenced by family size and poultry ownership, while their attitudes towards free roaming dogs was significantly influenced by age of the respondents and ownership of cattle/buffalo.[2] They also observed high knowledge score about rabies. But a comprehensive understanding of the disease was lacking. Chinnaian et al observed in their study in urban area that about 76% subjects had heard about rabies.[3] Among them 63.5% knew it is a fatal disease. Only 37.6% knew animals other than dogs can also cause rabies. Only 37.3% of the study participants knew about appropriate first aid. Only 37.55 of the animal bite victims washed their wound with soap and running water and 35% had a full course of vaccination. Education had been an important factor that created a significant difference in the knowledge level of the subjects. This observation is similar to the findings of our study in a rural area.

The 63.78% subjects in our study said anti-rabies vaccination should be affordable. The 36.61% mentioned that shortage of anti-rabies vaccination should not be there in the health care facility. The 75.20% subjects said one should not avail treatment from traditional healers in case of dog bite. The 74.02% subjects said victim of dog bite should take complete treatment to protect from rabies. The 70.47% said dogs are social nuisance and should be caught and taken away from the locality. The 61.42% participants said dogs should be sterilized as a part of prevention of rabies in the community. Majority of the subjects were literate in our study. Saurabh et al in their study in rural community in western Maharashtra observed that the 34.3% subjects were aware of rabies.[4] Only 17.59% participants were aware of the symptoms of rabies. Only 18.5% subjects would like to apply first-aid measure and 78.7% subjects will visit to Doctor and rest responded as doing nothing. The 61.11% subjects were aware of anti-rabies vaccine and 71.1% responded that dogs should be caught and taken away from locality, whereas the rest responded that dogs should be sterilized as a control measure.

In our study, 62.60% subjects said all dogs are dangerous. 81.10% subjects said rabies control activities in the village should be supported. 75.59% subjects said health education to children will help to reduce the problem of dog bite in the community. 67.72% respondents said anti-rabies vaccines are safe. According to 79.53% subjects, stray dogs are a problem in the locality. The 76.77% participants said every victim of dog bite should take anti-rabies vaccine. In our study, it is observed that many literate subjects have better positive attitudes towards dog bite and its management compared to the illiterate subjects. Sharma et al observed the dog bite incidence for study population was 25.2/1000 population with higher rates in urban i.e. 30.1/1000 than rural i.e. 19.6/1000 slum in North-West Delhi.[5] Two-fifths of the dog bite patients did not wash the wound with soap and water. The practice of washing the wound with soap and water was significantly higher in urban than rural slum. One-fifth of the patients did not receive anti-rabies vaccine. There was lower coverage in rural than urban slum. They observed 79% of the patients did not receive anti-rabies serum.

The 36.22% subjects in our study were aware of dog bite management campaign which was held in their locality. 49.61% subjects visited doctor after dog bite. The 76.77% subjects are willing to receive anti-rabies vaccine after dog bite. 32.28% subjects mentioned that their neighbors were victim of dog bite. The 66.54% mentioned that they will advise their friends to visit hospital in case of dog bite. The 59.84% subjects said receiving tetanus toxoid vaccine is a part of dog bite treatment. 65.35% subjects said observing concerned dog for ten days is a part of dog bite management. The 71.26% subjects mentioned that they will ask treating doctor to dress the dog bite wound. 53.85% subjects mentioned, suspected rabid dog should be killed. The 89.37% subjects agreed that their nearby hospital has facility to treat cases of dog bite and rabies disease. The 23.23% subjects said that villagers use home remedies to treat dog bite. The 81.10% subjects said that they ask Gram Panchayat to take action against stray dogs in the locality. In our study, it is observed that many literate subjects were having healthy practices towards dog bite and its management compared to the illiterate subjects. Similar results were also observed by other studies in rural area.

Sangeetha observed highest percentage of dog bite victims belonged to the age group of 5-25 years (33.7%).

The bites are more commonly by pet dogs (75.5%).[6] The 91.8% of the dogs were not vaccinated. Running, patting were the most common factors leading to dog bites (50%). The 52% of the study population had awareness of first aid for dog bite. The 88.8% population had awareness about ant-rabies vaccines for dog bites. John et al observed annual crude dog bite incidence between 0.26% and 2.5% with stray dogs as main biting animal.[7] The bites were mainly reported in males, between age group 10-40 years, individuals belonging to low socio-economic status and people working in fields. Daigle et al in their study in Canada observed, 21% of the respondents have had a dog bite in their lifetime.[8] Most respondents were not aware of the risk of contracting rabies following a dog bite. Jain et al in their study in Murad Nagar observed very low level of awareness about the post-dog bite management of wounds as well as about the rabies disease.[9] Murugan et al in their study in Tamil Nadu observed, high period prevalence of dog bites and it was common in children belonging to poor socio-economic conditions.[10]

Residents less than 18 years of age were not included in this study. About 30% of the victims of dog bite are children under the age of 15 years. Survey in this age group is required to have better idea of this important health issue in rural area. Similarly, there is a need of such type of study in urban community as well. Gender wise distribution of KAP towards dog bite and its management will also help to plan a program to prevent and control rabies in the community.

CONCLUSION

In rural community, there exists a considerable gap in KAP towards dog bite and its management. Increasing awareness and changing the attitudes and beliefs among the population is the need of the hour. Accordingly, regular IEC activities must be planned in rural areas to increase knowledge and to bring positive change in the attitudes and practices towards dog bite and its management among the people. The present study reflects the necessity for making the rural population aware about the dog bite and its complications, anti-rabies vaccination and first aid. A high prevalence of dog bites coupled with inadequate knowledge and poor dog bite management practices is a worrisome trend which should be taken into consideration while making policy for prevention and control of rabies in the community.

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