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Research Article

Health Literacy about Dog Bite among School Going Adolescents in a Semi-Urban Area of Karnataka

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A B S T R A C T

Introduction: Rabies is an acute viral zoonotic disease of the central nervous system which is invariably fatal. Studies suggest the common age group affected by dog bites to be children and adolescents. Most of the deaths due to rabies occur due to a lack of awareness resulting in delayed reporting, inappropriate wound management, and in some cases no post-exposure prophylaxis. Hence, the current study was attempted for assessing the health literacy regarding dog bites among school-going adolescents in a semi-urban area of Karnataka, India.

Materials and Method: The present study was conducted in a government school in Chickballapur. A pre-tested, semi-structured, self-administered questionnaire was devised to assess the health literacy status about dog bites among school-going adolescents in the age group of 11-16 years.

Results: A total of 320 students belonging to classes 7-10 participated in the study. The source of knowledge about rabies for them was majorly school (49.2%) and doctors (31.7%). 30.6% of them were unaware of the immediate steps to be taken following a dog bite incident. One-third of them (31.1%) were aware of rabies being a fatal disease.

Interpretation & Conclusion: The study showed that although several initiatives are run by the Government for preventing and controlling rabies, there are some schools in which students are unfamiliar with the causation and prevention of rabies. Educating children will make a positive impact on the awareness level about rabies among their family members which will ultimately have a positive impact on the community.

Keywords: Rabies, Animal Bite, Adolescents, Health Literacy

Introduction

Rabies is an acute viral zoonotic disease of the central nervous system (CNS) which affects all warm-blooded animals (including mammals) and occurs in more than 150

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countries and territories. As there is no treatment available to save those affected, the disease is almost always fatal, but with the presently available different rabies biologicals i.e., anti-rabies vaccines (ARV), rabies immunoglobulins (RIG) etc., the disease is almost 100% preventable. Globally, approximately 59,000 deaths occur due to this disease annually and dogs are the primary vectors in almost 99% of the cases.[1,2] From India alone, there are about 20,000 deaths (1/3rd) due to human rabies of which 97% are caused due to dogs.[3,4] Since rabies is almost 100% fatal, dog and cat bites should be considered a "medical emergency" and appropriate post-exposure prophylaxis (PEP), which comprises (a) local wound treatment, (b) anti-rabies vaccination, and (c) passive immunisation, should be administered immediately post an animal bite incident.[5] Research, studies, and experiences from across the world have demonstrated that appropriate administration of a combination of all the components of PEP has proved to be quite effective in preventing the occurrence of rabies.[6] In addition to this timely action, pre-exposure prophylaxis, reduction of street dog population, public awareness regarding post-exposure prophylaxis etc. would significantly reduce incidences of rabies.

Studies have shown that the common age group affected by dog bites are children and adolescents. It has been noticed that most of the deaths caused due to rabies occur due to delayed reporting, non-adherence, and non-compliance to vaccination regimen, and in some cases, minimal to nil post-exposure prophylaxis after the incident of a dog bite. This can be attributed to complete ignorance and lack of knowledge among the general population regarding the importance of immediate post-exposure prophylaxis which can reduce the suffering and fatality caused due to rabies, commonly caused by dog bites.

In this regard, the current study was attempted. The study has tried to assess the knowledge about rabies causation, prevention and treatment procedure following dog bites and general practices followed by the study participants' families following an incident of a dog bite (if any).

Materials and Method

Study Design, Study Setting and Study Population: This was a cross-sectional study, conducted at a government school in Chickballapur, a semi-urban area in Karnataka, India as part of routine activities conducted by the "Indian Association of Adolescent Health" among the school-going adolescents in the age group of 11-16 years.

Study Duration: The study was conducted during the month of September 2019.

Inclusion Criteria: All the students belonging to classes 7-10 were included in the study.

Data Collection

A pre-tested, semi-structured, self-administered questionnaire in the English language was devised to assess the health literacy status of dog bites among the school-going adolescents after explaining to them the purpose of the study. The questionnaire consisted of questions in four parts covering: (a) socio-demographic details of study participants, (b) knowledge, attitude and practices regarding rabies and its prevention, (c) incidences of dog bite and human rabies, and (d) treatments, if any, availed by the family in the recent past during any previous incident of a dog bite. Questionnaires were distributed to the study participants and were filled by them within a given stipulated time in the presence of the investigator and data collector. Data collection was followed by a health awareness session on "Dog bite and Rabies" conducted by the medical doctors, who were members of the 'Indian Association of Adolescent Health'.

Data Analysis and Statistical Methods

All the data were coded and entered into a master sheet on MS Office Excel and later transferred to SPSS (IBM SPSS Statistics 21.0) for analysis. Data validation checks were performed at regular intervals for data entered into the MS Excel worksheet. The results obtained were expressed in terms of percentages and proportions and depicted under tables and graphs. Tests of significance were used wherever applicable.

Ethical Consideration

Prior approval and procedural permission were obtained from the school authority for the study under the banner of "Indian Association of Adolescent Health".

Results

A total of 320 students participated in the study, out of which, 154 (48.1%) were males and 166 (51.9%) were female. The age of the participants ranged from 11 to 16 years and they belonged to classes 7-10 of the school. As per the modified Kuppuswamy socioeconomic classification, majority (60.6%) of the study participants belonged to the upper-middle class, (32.8%) belonged to the lower-middle class, and the rest (6.6%) belonged to the upper-lower class respectively.[7]

Out of the 320 students, majority (94.7%) were already familiar with the term rabies. Of these students, the source of knowledge about rabies was diverse, for e.g., school (49.2%), doctor (31.7%), television (30%), family members (27.7%), friends (26.4%), newspaper (26.1%), health worker (10.9%) and radio (3%). For most of them, the organism causing rabies was germs (46.2%) while a few others answered mosquitoes (1.7%) and worms (1%) as

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the causative organism and some (27.7%) didn't know at all. Only one-third of the participants (31.1%) were aware of rabies being a fatal disease (Table 1).

Table 1.Assessment of Knowledge of the Study Participants

(N = 320)

Variables	n (%)
Have you heard of the disease called rabies?	303 (94.7)
If yes, what was the source of information about rabies? (n = 303)	
Friend	80 (26.4)
Family members	84 (27.7)
Newspaper	79 (26.1)
Radio	9 (3.0)
Television	91 (30.0)
School	149 (49.2)
Doctor	96 (31.7)
Health worker	33 (10.9)
Which organism causes rabies? (n = 303)	
Germs	140 (46.2)
Mosquitoes	5 (1.7)
Worms	3 (1.0)
Don't know	84 (27.7)
Others	89 (29.4)
Is rabies a fatal disease?	
Yes	101(31.5)
No	102(31.9)
Don't know	117(36.6)
Can rabies in human beings be prevented by anti-rabies vaccination? (n = 303)	
Yes	253 (79.1)
No	10 (3.1)
Don't know	57 (17.8)
If yes, how many injections by the intramuscular route are advised after dog/ animal bites? (n = 303)	
1 injection	40 (12.9)
3 injections	17 (5.5)
5 injections	38 (12.3)
7 injections	50 (16.1)
14 injections	75 (24.2)
Don't know	87 (28.1)
Others	3 (1.0)
Do you know about preventive anti-rabies vaccination for dog/ animal bites?	
Yes	175 (54.7)
No	36 (11.3)
Don't know	109 (34.1)
Who is at risk for dog/ animal bites?	
Children	270 (84.4)
Adults	65 (20.3)
Elderly	9 (2.8)
Don't know	40 (12.5)

As per the study participants, the animals responsible for the transmission of rabies were dogs (93.4%), rats (8.1%), monkeys (4.4%), cats (3.1%), foxes (1.9%), and birds (0.6%). 79.1% of the study participants agreed that anti-rabies vaccination can prevent rabies.

75 (24.2%) participants responded to the need for taking 14 injections by intramuscular route following dog/ animal bites whereas 38 (12.3%) and 40 (12.9%) participants responded to the requirement of 5 injections and a single injection respectively (Table 1).

Table 2.Distribution of Study Participants according to the Attitude about Measures following Animal Bites

(N = 320)

Variables	Agree	Don't Know	Disagree
Dog/ animal bite wound should be washed with soap and water	129 (40.3)	65 (20.3)	126 (39.4)
Application of jackfruit gum with coin over the dog/ animal bite can prevent rabies	49 (15.3)	218 (68.1)	53 (16.6)
It is better to visit a traditional healer following a dog/ animal bite	140 (43.8)	84 (26.2)	96 (30)
Intradermal rabies vaccination is more effective in the prevention of rabies	98 (30.6)	176 (55)	46 (14.4)
People are unable to afford anti-rabies treatment because it is very costly	74 (23.1)	102 (31.9)	144 (45)

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Anti-rabies vaccination may lead to severe adverse effects	108 (33.8)	157 (49.1)	55 (17.2)
Rabies can be cured	254 (79.4)	52 (16.2)	14 (4.4)
The biting animal should be killed	39 (12.2)	44 (13.8)	237 (74.1)
Are you willing to receive pre-exposure prophylaxis (before the bite of animal) vaccine against rabies?	94 (29.4)	159 (49.7)	67 (20.9)

On the attitude of the study participants towards rabies and measures to be followed post animal bite incident, 40.3% of the study respondents agreed that the dog/ animal bite wound should be washed with soap and water, 43.8% agreed on visiting traditional healers following dog/ animal bite to be a better option, and 30.6% agreed on intradermal vaccination being more effective in the prevention of rabies.

While most of the participants (79.4%) knew rabies can be cured, 29.4% of the participants were willing to receive a pre-exposure prophylaxis vaccine against rabies. At the same time, 23.1% and 33.8% attributed the high cost of anti-rabies vaccination and severe adverse effects following rabies vaccination to be reasons for people not taking anti-rabies prevention.

Although 33.8% believed anti-rabies vaccination to lead to severe adverse effects, 29.4% were willing to receive pre-exposure prophylaxis (before the bite of animal) vaccine against rabies (Table 2).

Table 3.Distribution of Study Participants according to Knowledge regarding Animal Bite

(N = 320)

Variables	n (%)
What should be done once a person is bitten by an animal?	
Washing the wound with water only	64 (20.0)
Washing the wound with soap and water	37 (11.6)
Application of Dettol/ Savlon	142 (44.4)
Application of jackfruit gum with coin	22 (6.9)
Application of turmeric powder	55 (17.2)
Application of coffee powder	18 (5.6)
Application of mud/ lime	8 (2.5)
Going to a doctor	11 (3.4)
Don't know	98 (30.6)
Others	3 (0.9)
What are the symptoms of rabies in humans?	
Fever	23 (7.2)
Jaundice	14 (4.4)
Itching and tingling around the area of bite	94 (29.4)
Fear of water	21 (6.6)
Fear of air	10 (3.1)
Fear of light	3 (0.9)
Convulsions	7 (2.2)
Excessive salivation	47 (14.7)
Don't know	114 (35.6)
Others	5 (1.6)
Which medicine is effective in the prevention of rabies?	
Traditional medicine	27 (8.4)
Modern medicine	191 (59.7)
Magic/ religious method	5 (1.6)
Don't know	97 (30.3)
How do you avoid animal bites?	
Not throwing stones at animals	81 (25.3)
Not to run in front of animals	124 (38.8)
Avoid teasing the animal	113 (35.3)
Don't know	25 (7.8)
By loving and caring for the animal	13 (4.1)

With respect to the practices to be followed by the study participants following a dog bite, majority of the study participants mentioned the application of Dettol/ Savlon (44.4%) at the wound site whereas one-third of the participants (30.6%) were unaware of the actions to be taken following the incident of a dog bite. Washing the wound using water only (20%), application of turmeric powder over the wound (17.2%), washing the wound with soap and water (11.6%), application of jackfruit gum using a coin (6.9%), application of coffee powder (5.6%), and application of mud or lime (2.5%) were some of the other responses recorded. Only 3.4% of the participants mentioned visiting a doctor to be the first step following a dog bite.

Of the study participants, 59.7% believed modern medicine to be effective in the prevention of rabies while 8.4% and 1.6% believed traditional medicine or religious/ magical methods to be effective. As far as knowledge about symptoms of rabies was concerned, the various symptoms reported were itching and tingling around the area of bite

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(29.4%), excessive salivation (14.7%), fear of water (6.6%), fear of air (3.1%), fever (7.2%), jaundice (4.4%), fear of light (0.9%), and convulsions (2.2%). Not running in front of animals (38.8%), not teasing the animals (35.3%), and not throwing stones at animals (25.3%) were some of the reasons highlighted by the participants to avoid animal bites (Table 3).

More than half of the participants (57.2%) had some incident(s) of dog or animal bite in their family post which 54.7% of them reported having visited a doctor. Of them, 70.7% and 29.3% had visited private and government hospitals respectively. Before visiting the hospital, 12.7% reported having applied turmeric powder, only 11.4% had washed the wound with soap and water, 10.4% had applied Dettol/ Savlon to the wound, and 4.4% mentioned having washed the wound with water only.

No significant association was found between receipt of anti-rabies vaccine and gender and socioeconomic class of the study participants. However, it was observed that a greater number of students of class 7 and of the age group 13-14 years had received anti-rabies vaccines in the past as compared to the other age groups and this association was found to be statistically significant (Table 4).

No significant association was observed to be present between the socio-demographic characteristics of the study participants and the history of animal bite incident(s) in their families in the past one year (Table 5).

Table 4.Association between Socio-demographic Factors and Administration of Anti - rabies Vaccine among the Study Participants

Variables	Have you received Anti-rabies Vaccines in the Past?		Chi square	P value
	Yes (n = 107)	No (n = 213)		
Age (in years)				
11-12 (n = 69)	37 (34.6)	32 (15.0)	17.456	0.001
13-14 (n = 195)	58 (54.2)	137 (64.3)		
15-16 (n = 56)	12 (11.2)	44 (20.7)		
Gender				
Male (n = 154)	59 (55.1)	95 (44.6)	3.169	0.075
Female (n = 166)	48 (44.9)	118 (55.4)		
Education/ Class				
7 (n = 92)	45 (42.1)	47 (22.1)	15.483	0.001
8 (n = 88)	27 (25.2)	61 (28.6)		
9 (n = 74)	21 (19.6)	53 (24.9)		
10 (n = 66)	14 (13.1)	52 (24.4)		
Socioeconomic class				
Upper-lower class (n = 21)	4 (3.7)	17 (8.0)	2.754	0.252
Lower-middle class (n = 105)	33 (30.8)	72 (33.8)		
Upper-middle class (n = 194)	70 (65.4)	124 (58.2)		

Table 5.Association between Sociodemographic Factors and Incidence of Animal Bite in the Past Year among the Study Participants

Variables	Has anyone in your family had an incident of animal bite in the past one year?		Chi square	P value
	Yes (n = 23)	No (n = 297)		
Age (in years)				
11-12 (n = 69)	1 (4.3)	68 (22.9)	4.345	0.114
13-14 (n = 195)	17 (73.9)	178 (59.9)		
15-16 (n = 56)	5 (21.7)	51 (17.2)		
Gender				
Male (n = 154)	12 (52.2)	142 (47.8)	0.163	0.687

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Female (n = 166)	11 (47.8)	155 (52.2)		
Education/ Class				
7 (n = 92)	2 (8.7)	90 (30.3)	6.815	0.078
8 (n = 88)	8 (34.8)	80 (26.9)		
9 (n = 74)	9 (39.1)	65 (21.9)		
10 (n = 66)	4 (17.4)	62 (20.9)		
Socioeconomic class				
Upper-lower class (n = 21)	1 (4.3)	20 (6.7)	4.218	0.121
Lower-middle class (n = 105)	12 (52.2)	93 (31.3)		
Upper-middle class (n = 194)	10 (43.5)	184 (62.0)		

Table 6.Association between Socio-demographic Factors and Past History of Dog Bite Incident(s) among the Family Members of the Study Participants

Variables	Has anyone in your family had incident(s) of dog/ animal bite in the past?		Chi square	P value
	Yes (n = 183)	No (n = 137)		
Age (in years)				
11-12 (n = 69)	54 (29.5)	15 (10.9)	15.96	0.001
13-14 (n = 195)	100 (54.6)	95 (69.3)		
15-16 (n = 56)	29 (15.8)	27 (19.7)		
Gender				
Male (n = 154)	89 (48.6)	65 (47.4)	0.044	0.833
Female (n = 166)	94 (51.4)	72 (52.6)		
Education/ Class				
7 (n = 92)	70 (38.3)	22 (16.1)	28.206	0.001
8 (n = 88)	49 (26.8)	39 (28.5)		
9 (n = 74)	26 (14.2)	48 (35.0)		
10 (n = 66)	38 (20.8)	28 (20.4)		
Socioeconomic class				
Upper-lower class (n = 21)	14 (7.7)	7 (5.1)	3.478	0.176
Lower-middle class (n = 105)	66 (36.1)	39 (28.5)		
Upper-middle class (n = 194)	103 (56.3)	91 (66.4)		

No significant association was observed to be present between the past history of animal bite incident(s) among the family members of the study participants and the gender distribution and socioeconomic class of the study participants. However, it was observed that a greater number of students of class 7, students belonging to the age group of 11-12 years and 13-14 years reported a past history of animal bite incident(s) among their family members and these associations were found to be statistically significant (Table 6).

Discussion

The study was carried out to assess the health literacy about dog bites among the school-going adolescents in a government school in Karnataka which was followed by a health education session and a general discussion about animal bites and rabies. Results captured as part of the study show that although the Government of India has planned initiatives for spreading awareness and for prevention and control of rabies, still there are schools in which the students are unfamiliar with the causation and prevention of a fatal disease like rabies.

In the present study, most of the students (94.7%) were already familiar with the term rabies and the different sources of information about rabies were majorly schools (49.2%), doctors (31.7%), television (30%), family members (27.7%), and friends (26.4%). These findings were comparable with

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the findings of a study conducted by Lungten L et al. on the knowledge, attitude and practices on rabies among school children in southern Bhutan (among 701 students) where it was found that most of the students (98.2%) had heard about rabies and the sources of information were health workers (70.9%), teachers (65.3%), and friends (52.6%).[8] However, a study conducted by Aswathy S et al. among the school-going students in Calicut district, Kerala showed that only 51.2% of the students were aware of rabies, of which 45.7% reported their source of information as school only. [9]

In the current study, for most of the students, the organisms causing rabies were germs (46.2%) while a few others responded as mosquitoes (1.7%) and worms (1%) being the causative organism and some (27.7%) didn't know at all. This was contrary to the findings of a cross-sectional study conducted by Grace AG et al. in Chrompet, an urban residential area in Kancheepuram district among 340 school children, where about 46% of the children were aware of rabies disease being caused by a virus.[10] Also, as per a study conducted by Lungten L et al., rabies causing organism stated by most of the students (58.0%) was correct (virus) although some of the students associated the cause of rabies with other factors such as bacteria (47.4%), eating food or poison (37.2%), psychological problems (27.5%), starvation and thirst (15.8%), and spirits (4.1%).[8]

The study participants, in the present study, stated dogs as the animal responsible for the transmission of rabies (93.4%) followed by rats (8.1%), monkeys (4.4%), cats (3.1%), foxes (1.9%), and birds (0.6%). Similar findings were observed in a study by Lungten L et al., where majority (90.4%) were aware of dogs being the main source of transmitting rabies, followed by bats (5.2%), cats (0.4%), cows (0.1%) and birds (0.3%).[8]

As far as the knowledge regarding the application of first aid following a dog bite incident is concerned, the study participants had poor knowledge overall. One-third of the participants (30.6%) were unaware of the actions to be taken following a dog bite incident whereas only 11.6% and 20% responded that the wound should be washed with soap and water and using only water respectively. Application of Dettol/ Savlon (44.4%), application of turmeric powder (17.2%) etc. were some of the other responses recorded. Only 3.4% of the participants mentioned visiting a doctor to be the first step following a dog bite incident. Similar findings were stated in a study conducted by Das J et al. where majority of the students were unaware of the correct first aid measures to be applied. 39% stated they would do nothing following an incident of a dog bite whereas 29% would wash the wound with plain water only. 16% would wash the wound with soap and water while a few (5%) would prefer going to a traditional healer.[11] However, the cross-sectional study conducted by Grace AG et al. in Chrompet reported that around 80.3% of its study participants were aware of the importance of wound washing as a first-aid measure while 44% knew that there was a requirement of immediate treatment following a dog bite incident.[10]

As far as knowledge regarding the prevention of rabies was concerned, one-third of the participants (30.3%) were unaware of any preventive measures. 59.7% believed modern medicine to be effective in the prevention of rabies while 8.4% and 1.6% believed traditional medicine or religious/ magical methods to be effective. However, 79.1% of the study participants paradoxically agreed that anti-rabies vaccination can prevent rabies. As per the study by Lungten L et al., most of the students (65.7%) were aware that rabies can be prevented by vaccination.[8] Similar findings were reported in the study conducted by Aswathy S et al., where 79.7% of the students were aware of anti-rabies vaccination being effective in the prevention of rabies.[9] However the cross-sectional observational study conducted by Das J et al. stated that 63% of their study respondents were aware that rabies can be prevented with vaccination.[11] Another cross-sectional study by Pai D et al. reported that 67.8% of the children in their study were aware of the fact that vaccines were effective in the prevention of rabies.[12]

In the current study, more than half of the participants (57.2%) had some incident(s) of dog or animal bite in their family, of which 70.7% and 29.3% had visited private and government hospitals respectively. Before visiting the hospital/ health facility, 12.7% said to have applied turmeric powder, 11.4% had washed the wound with soap and water, 10.4% had applied Dettol/ Savlon to the wound and 4.4% mentioned having washed the wound with water only. As per the study conducted by Lungten L et al., majority of the students (62.2%) indicated that they had washed the wound with soap and water and 84.7% had visited a hospital.[8] Similar to this present study, the application of local medicine at the wound site was reported by a few individuals (11.7%). In a prospective observational study by Samanta M et al., 10.39% of the animal bite patients had their wounds treated with various agents while 54.55% of the participants gave a history of proper wound care.[13] However, in the cross-sectional study conducted by Venkatesan M et al., 64% of the study subjects reported having washed their wounds, of which only 36% reported having used soap and water for washing and 21% had applied some irritants such as onion, ash, lime etc. on the wound.[14]

Limitations of the Study

The present study was undertaken in one of the government schools of one of the towns in Karnataka, India. Therefore, the results may not have given us a complete picture of the

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knowledge status of rabies awareness among school-going adolescents across the country.

Conclusion and Recommendation

Various studies conducted in different parts of India suggest an annual incidence of animal bites ranging from 2 to 19 per 1000 persons. A relatively higher incidence of animal bites in children is considered to be a behavioural risk phenomenon because of the natural curiosity of children, their lack of inhibition, limited knowledge, and experience about dog behaviour and their inability to protect themselves during an attack.[15,16] Spreading awareness about rabies along with proper health education is an important step in the control of rabies among school-going children which should ideally start on a large scale with the involvement of mass media and integration of this topic in their school syllabus. Educating children/ students will have a positive impact on the awareness level about rabies among their family members which will ultimately have a positive impact on the community as a whole.

In a country like India where the population of unvaccinated stray dogs is high, children are the most vulnerable group to suffer dog/ animal bites. Hence, health education campaigns along with school health programmes focusing on the prevention of dog bites, correct wound management practices (viz. immediate first aid measures, local wound treatment etc.), administration of anti-rabies vaccine and rabies immunoglobulins etc. should be intensified which should then be followed by regular knowledge assessment sessions and campaigns.

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References

1. World Health Organization [Internet]. WHO Expert Consultation on rabies: Third Report, No. 1012. Geneva, Switzerland: World Health Organization; 2018 [cited 2021 Oct 9]. Available from: http://www.who.int/rabies
2. World Health Organization [Internet]. Rabies Fact Sheet; [cited 2020 Jun1]. Available from https://www.who.int/news-room/fact-sheets/detail/rabies#:~:text=Key%20facts,and%20prevention%20of%20dog%20bites
3. Association for Prevention and Control of Rabies in India [Internet]. Report of the National Multi-Centric Survey. Bangalore; 2004 [cited 2021 Oct 9]. Available from: http://www.apcri.org
4. Sudarshan MK, Madhusudana SN, Mahendra BJ, Rao NS, Ashwath Narayana DH, Abdul Rahman S, Meslin FX, Lobo D, Ravikumar K, Gangaboraiah. Assessing the burden of human rabies in India: results of a national multi-center epidemiological survey. Int J Infect Dis. 2007;11(1):29-35. [PubMed] [Google Scholar]
5. National Centre for Disease Control, DGHS, MOHFW Govt. of India [Internet]. National Rabies Control Program National Guidelines on rabies prophylaxis; 2015 [cited 2021 Oct 9]. Available from http://clinicalestablishments.gov.in/WriteReadData/238.pdf
6. Center for Disease Control and Prevention [Internet]. Human Rabies Prevention - United States, 1999 Recommendations of the Advisory Committee on Immunization Practices (ACIP); [cited 2021 Oct 9]. Available from https://www.cdc.gov/mmwr/preview/mmwrhtml/00056176.htm
7. Saleem SM, Jan SS. Modified Kuppuswamy socioeconomic scale updated for the year 2021. Indian J Forensic Community Med. 2021;8(1):1-3. [Google Scholar]
8. Lungten L, Rinchen S,Tenzin T, Phimpraphai W, de Garine-Wichatitsky M. Knowledge and perception of rabies among school children in rabies endemic areas of South Bhutan. Trop Med Infect Dis. 2021;6(1):28. [PubMed] [Google Scholar]
9. Aswathy S, Prejit, Sunanda C, Biju HP, Sathya Sooryam AM, Asha K. Assessment of knowledge of rabies among school children's of Kerala. J Foodborne Zoonotic Dis. 2019;7(1):5-8.
10. Grace AG, Gopalakrishnan S, Edward S. Knowledge regarding rabies among school children in an urban area of Kancheepuram district: a cross sectional study. Int J Community Med Public Health. 2020;7:3178-82. [Google Scholar]
11. Das J, Kiran J. Cross-sectional observational study about awareness of rabies and response to dog bites in school children between age group 10-18 years and their teachers. APCRI. 2019;12(1):71-6.
12. Pai D, Kamath AT, Panduranga KP, Kamath R, Chakravarthy KP, Nayak R, Chitra K, Kumar S. Survey of knowledge of school children towards the prevalence, severity, management of maxillofacial injuries, and rescue skills in the event of a dog bite. J Indian Soc Pedod Prev Dent. 2018;36:334-8. [PubMed] [Google Scholar]
13. Samanta M, Mondal R, Shah A, Hazra A, Ray S, Dhar G, Biswas R, Sabui TK, Raychaudhuri D, Chatterjee K, Kundu C, Sarkar S. Animal bites and rabies prophylaxis in rural children: Indian perspective. J Trop Pediatr. 2016;62:55-62. [PubMed] [Google Scholar]
14. Venkatesan M, Dongre A, Ganapathy K. A community based cross sectional study of dog bites in children in a rural district of Tamil Nadu. Int J Med Sci Public Health. 2017;6:109-12. [Google Scholar]
15. Lang ME, Klassen T. Dog bites in Canadian children: a five-year review of severity and emergency department management. CJEM. 2005;7(5):309-14. [PubMed] [Google Scholar]
16. Overall K, Love M. Dog bites to humans - demography, epidemiology, injury and risk. J Am Vet Med Assoc. 2001;218(12):1923-34. [PubMed] [Google Scholar]