

Title: PERCEPTIONS REGARDING DOG BITE AND ITS TREATMENT AMONG ACCREDITED SOCIAL HEALTH ACTIVISTS OF MANDYA TALUK, KARNATAKA

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Keywords ASHA, Dog bite, Awareness, diseases, Post Exposure Prophylaxis (PEP)

Abstract Approx. 1.7 crore dog bites occur in India annually. Dog bites can cause various diseases like rabies, tetanus and bacterial infections which have high mortality & morbidity. ASHA are community health workers and act as a link between the community and health care services. Perceptions regarding preventive measures for dog bite are very important among ASHA as they are close to the community and interact personally with the vulnerable population.

Original Article

Perceptions regarding Dog Bite and its treatment among accredited Social Health Activists of Mandya Taluk, Karnataka State

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ABSTRACT**Background:**

Approximately 1.7crore dog bites occur in India annually. Dog bites can cause various diseases like rabies, tetanus and bacterial infections which have high mortality & morbidity. ASHA are community health workers and act as a link between the community and health care services. Perceptions regarding preventive measures for dog bite are very important among ASHA as they are close to the community and interact personally with the vulnerable population.

Objectives: To assess awareness of Accredited Social Health Activists (ASHA) on

- (a) diseases transmitted by dog bites
- (b) methods to avoid dog bites
- (c) post exposure prophylaxis after a dog bite

Materials and Methods:

Source of data : ASHAs of Mandya taluk.

Study design : Cross sectional

Study period : August to October 2012.

Sample size : 190

Results:

There are a total of 212 ASHA in Mandya taluk. Of these 190 (89.6%) consented for the study. 139 (73.1%) knew about rabies and 27 (14.2%) knew about tetanus & other bacterial infections. 20 ASHAs (10.5%) had no knowledge about diseases transmitted by dog bites. 151 (79.5%) believed that a dog bites a person when provoked. 39 (20.5%) thought that people get bitten when the dog becomes mad. They felt that children (68.9%) & strangers (25.3%) were at a higher risk of getting bitten by dogs. To avoid dog bites, 115 (60.5%) opined that stray dogs which bite people should be killed. 129 (67.9%) knew that washing the wound with soap and water is necessary. 115 (60.5%) knew that injection was necessary after dog bite and 33 (17.4%) thought that 7 injections were required.

Conclusion: The knowledge regarding prevention of dog bites and treatment after dog bite is lacking among ASHA and needs to be enhanced.

Key words: ASHA, Dog bite, Awareness, Diseases, Post Exposure Prophylaxis (PEP)

INTRODUCTION

Accredited Social Health Activists (ASHA) are the first health contact for any health related demands of deprived sections of the population especially women & children. She is from the community and her responsibilities include providing minimum package of feasible curative care and to make timely referrals. She should

mobilize the community and facilitate them to access health services¹.

Approximately 1.7crore dog bites occur in India annually². Dog bites can cause various diseases like rabies, tetanus and bacterial infections. These infections are associated with high mortality & morbidity. Nearly half of the dog bite victims are children³.

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However, dog bites and the infections caused by it can be easily prevented by suitable behaviour around dogs, appropriate first aid and immunization. Perceptions regarding these preventive measures are very important among ASHA as they are close to the community and interact personally with the vulnerable population.

Objectives of the study:

To determine the perceptions of Accredited Social Health Activists (ASHA) on

- diseases transmitted by dog bites
- methods to avoid dog bites
- post exposure prophylaxis after a dog bite

Materials and Methods

This cross sectional study was conducted on all consenting ASHAs of Mandya taluk, Karnataka. A total of 212 ASHAs are there in Mandya taluk. Of which 190 (89.6%) answered a pre-structured and pre-tested questionnaire which was given in the local language, Kannada, regarding prevention and treatment by dog bite. The study was conducted over 3 months from August to October 2012. Results were analysed using proportions.

Results

The mean age of ASHAs was 28.3±5.7 years. 143 (75.3%) had completed the secondary education.

Of the 190 ASHAs interviewed, 139 (73.1%) knew about rabies, 27 (14.2%) knew about tetanus & other bacterial infections, 4 (2.1%) knew about rabies, tetanus & other bacterial infections. 20 ASHAs (10.5%) had no knowledge about diseases transmitted by dog bites.

With regard to their perceptions as to why a dog bites a person, 151 (79.5%) believed that a dog bites

Table 1
Reasons for provoking a dog as given by ASHAs

Reasons for provocation of a dog	Number	Percentage*
Hit the dog or pull tail	61	32.1
Step on its body parts (legs, tail)	52	27.3
When it has puppies	34	17.9
When we enter its territory	16	8.4
Dress strangely (rag pickers)	13	6.8
While carrying food items	4	2.1

*Multiple answers received

Table 2
First aid for dog bites as observed by ASHAs among dog bite victims

First aid observed by ASHA	Number	Percentage*
Wash with water	38	20.0
Wash with soap and water	13	6.8
Apply antiseptic	6	3.2
Injections	74	38.9
Irritants	32	16.9
Tie cloth	21	11.1

*Multiple answers received

Table 3
Knowledge of ASHA workers regarding number of injections

Number of injections required after dog bite	Number	Percentage
1 or 2	26	13.7
5	11	5.8
7	33	17.4
10	15	7.9
14	9	4.7
Not known	21	11.1

a person when provoked. The perception as to what constitutes provocation was varied and is given in Table 1. 39 (20.5%) ASHAs thought that people get bitten when the dog becomes mad.

ASHAs felt that the risk of getting bitten by dogs was highest among children and among strangers, 131 (68.9%) and 48 (25.3%) respectively. 40 (21.1%) thought that adults and 9 (4.7%) thought that old people were at risk.

With regard to the perceptions on the various measures that should be taken to prevent dog bites, 115 (60.5%) opined that stray dogs which bite people should be killed. 44 (23.1%) felt that pet dogs should not be left to roam around but should be tied in their house. 27 (14.2%) felt that higher authorities should be informed and 16 (8.4%) felt that dogs should not be provoked to avoid dog bite.

122 (64.0%) of ASHA have come across dog bite cases in their experience. The first aid that they observed being given to the victim is detailed in Table 2.

With regard to their knowledge about treatment of dog bite, 129 (67.9%) knew that the wound should be washed with soap and water. 38 (20.0%) knew that antiseptic has to be applied on the bite

wound. 177 (93.2%) felt that consulting a doctor after dog bite is necessary and 115 (60.5%) knew that injection/s was necessary after dog bite. The number of injections that the ASHAs felt that a dog bite victim needs is given in Table 3.

9 (4.7%) knew that irritants and bandaging should not be done to the bite wound. 15 (7.9%) were of wrong opinion that irritants like lime, turmeric, coffee powder, herbs etc have to be applied and 13 (6.8%) thought that the wound has to be bandaged.

Discussion and Conclusion

We could not find any other study in which the perceptions of ASHAs regarding prevention and treatment of dog bites were assessed. However studies have been conducted in rural communities, urban slums, college students, etc.

In the present study, 73.1% knew about rabies as compared to 68.7% in a multi-centric study in general population.⁴ 20.5% knew that rabid animal bites without provocation, compared to 33.4% among college students⁵.

60.5% ASHAs opined that stray dogs which bite people should be killed. Similar response was found in rural Delhi (73.5%)⁶ and rural Gujarat (55%)⁷.

The knowledge that the bite wound has to be washed with soap & water was comparatively more among ASHAs (67.9%) than rural Pune (23.5%)⁸, urban slum area (66%)⁹, rural multi-centric studies (31.9%, 37.2%)^{4,10} and college students (53.1%)⁵.

20.0% knew that antiseptic has to be applied on the bite wound. It was 31.1% in rural Gujarat and 0.9% in rural Pune^{6,8}.

Only 4.7% knew that irritants and bandaging should not be done to the bite wound. 14.7% were of wrong opinion to apply irritants like lime, turmeric, coffee powder, herbs etc and to bandage the wound. This can be compared to other studies done in rural areas of New Delhi (42%), multi-centric studies (36.8%, 10.8%), rural Pune (29.3%), urban slum area (30.3%), rural Gujarat (19.2%)^{4,6-10}.

In our study, most ASHAs 93.2% knew that consulting a doctor after dog bite is important.

Similar results were found in Sri Lanka (96%)¹¹.

While many ASHAs (60.5%) acknowledged the need of injection, only a few (7.4%) of them knew about correct number of injections required. In a study done in rural Gujarat, 79% felt that 14 injections had to be taken and 5.7% thought that 10 injections had to be taken on abdomen⁷.

Conclusion

The awareness among ASHAs regarding diseases transmitted by dog bites, methods to avoid dog bites and first aid & treatment of dog bite victim is low and needs to be enhanced. After the collection of data, all the ASHAs interviewed were given awareness regarding dog bite and its treatment. This study recommends educational activities for ASHAs regarding dog bite and its treatment as they are the first contact for rural people for matters regarding health and disease.

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