



Factors Affecting Stress Levels Among Dog Bite Victims: A Cross Sectional Study

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Introduction:

In India, the annual incidence of dog bite is 17.4 million. ^[1]

Physical injury is the first and painful experience due to dog bite.

It may lead to considerable injury, with tissue damage and bleeding.

Even if the injury and blood loss is not severe, the ghastly sight of the bite injury and bleeding leads to a significant amount of mental anguish. ^[2]

Following the immediate anguish and physical trauma is the fear of contracting disease from the dog bite.

The important diseases that are spread due to dog bite are

(a) Bacterial infections of the bite wound (b) Rabies (c) Tetanus, etc

In addition to these fears, the dog bite victims have to go to the hospitals for prophylaxis and treatment.

The hospital environment, treatment procedures, repeated injections, etc adds to the preexisting fears.

This study aims to quantify this stress and the factors affecting it.

The factors considered are age, sex, residence, education, prior dog bite, extent of bite wound, pet/stray dog, etc

Methods:

This cross sectional study was conducted among 500 dog bite victims reporting to Anti Rabies Clinic of Mandya Institute of Medical Sciences, Mandya; by interviewing them using a semi-structured proforma. Perceived Stress Scale ^[4] was used to quantify the stress levels. Data was analyzed using descriptive statistics and chi square test was used to determine association of risk factors.

Results:

Table 1: Stress due to severity of injury

Wound size		Stress		X ² =101.01 P=0.000
Small	225	111 (49.3%)		
Moderate	172	165 (95.9%)		
Severe	103	99(96.1%)		

Table 2: Fear of dogs before & after present dog-bite

	Before	After	X ² =22.957 P=0.000041
No	25(5%)	18(3.6%)	
Slightly	220(44%)	153 (30.6%)	
Moderately	167 (33.4%)	207 (41.4%)	
Very much	88 (17.6%)	122(24.4%)	

Table 3: Socio-demographic factors affecting stress due to dog-bite

Age(years)		Stress		X ² =2.293 P=0.317
<18	119	96 (80.6%)		
18-60	282	223(79%)		
>60	99	72(72.7%)		
Sex				
Male	320	223(69.6%)	X ² =59.08 P=0.000	
Female	180	177 (98.3%)		
Residence				
Rural	321	201(62.6%)	X ² =14.901 P=0.0001	
Urban	179	142 (79.3%)		
Education				
Primary	230	217(94.3%)	X ² =7.577 P=0.022	
School	145	127(87.5%)		
College	125	119(95.2%)		

Majority of the dog-bite victims were males from rural areas and were moderately stressed.

Adolescent urban females bitten by stray dog and having history of dog-bite were the most stressed.

While many knew that dog-bites lead to diseases and it was important to get injections after dog-bite, knowledge regarding the diseases and importance of compliance for the full schedule of the post exposure prophylaxis was less.

Conclusion:

Stress among dog-bite victims is an important aspect of health and needs to be addressed.

References

1. World health organization. Animal Bites. [Internet, accessed on 01 Jun 2021] <https://www.who.int/news-room/fact-sheets/detail/animal-bites>
2. Beth Sissons. What happens if a dog bite gets infected? Medical News Today. November 2019. [Internet, accessed on 01 Jun 2021]