

A Correlational Study to Assess the Prevalence of Dog Bite Among Children and Awareness of Prevention and Post-Exposure Prophylaxis Among Parents at Selected Community, Bangalore

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Abstract: Dog bites are a major public health concern worldwide, especially in underdeveloped nations where rabies is still endemic. Rabies is a lethal viral disease transmitted mostly through dog bites that kill thousands of people each year, with children being the most vulnerable. "Rabies is a vaccine-preventable viral disease" that affect more than 150 countries and territories. Dogs are responsible for the great majority of human rabies deaths, accounting for up to 99% of rabies transmission to people. **Objectives:** Primary objectives1. To estimate the prevalence of dog bite among children.2. To assess the level of parental awareness regarding prevention of dog bites and post-exposure prophylaxis (PEP) among parents. Secondary objectives3. To assess the association between the prevalence of dog bites among children and selected demographic variables.4. To evaluate the association between parental awareness regarding prevention and post-exposure prophylaxis with selected demographic variables. **Methodology:** **Study Design:** A descriptive cross-sectional study was conducted to assess the epidemiological profile, management, and outcomes of dog bite cases. **Study Setting:** The study was carried out at the Emergency Department of BGS GIMS, Data were collected from patients presenting with dog bites between [November, 2025to February 2026]

Keywords: Prevalence, Dog bite awareness, Post-Exposure Prophylaxis (PEP) and community

1. Introduction

The World Health Organization (WHO, 2023) estimates the tens of millions of humans are bitten by dogs each years, with over 59,000 death from rabies, the majority of which occur in Asia and Africa. Rabies is a serious public health concern in India, with dog bites serving as the primary mode of transmission. Individuals frequently delay or avoid seeking urgent medical intervention due to a lack of information about appropriate wound care, misconceptions about traditional medicines, and a lack of knowledge of post-exposure prophylaxis (PEP) method. Awareness of dog bite prevention and management is critical in decreasing the burden. Parents' knowledge, attitudes and actions about dog bite management have a direct impact on the adoption of PEP. Understanding the prevalence of dog bite awareness and its link with PEP use might help identify gaps in knowledge and challenges to successful rabies preventive programs. According to the World Health Organization (WHO, 2024), rabies continue to kill a large number of people worldwide, with the bulk happening in Asia and Africa. The longevity of stray dog population, as well as a lack of understanding about preventive measures, lead to an increase in dog attacks and the danger of rabies. Despite being preventable with proper post-exposure prophylaxis (PEP), a lack of awareness and delayed treatment remains significant issues. Nurses serve critical roles in community education, prevention, and early intervention. As a result, analysing the level of awareness regarding dog bite.

2. Need for the Study

In 2007, in Bangalore, two children were killed by a pack of dogs. This resulted in mass killing of dogs throughout the city

causing animal rights activists to protest against the Bruhat Bengaluru Mahanagara Palike for the action they took against stray dogs, which were cruel and improper.

Rabies is a major public health concern, particularly in developing nations such as India, where it is endemic. India bears a major share of the global rabies burden, accounting for almost 36% of all rabies deaths, with an estimated 18,000–20,000 deaths per year despite the disease being 100% avoidable.

According to the National Rabies Control Programme, dog bites are the leading cause of rabies transmission, accounting for around 96% of cases. The number of animal bites in India is disturbingly high, with an estimated 9–20 million occurring each year, the vast majority of which are inflicted by dogs. According to recent national data, nearly 3.7 million dog bite instances were reported in 2024 alone, indicating a growing trend and a major public health risk.

3. Objectives

Primary objectives

- To estimate the prevalence of dog bite among children.
- To assess the level of parental awareness regarding prevention of dog bites and post-exposure prophylaxis (PEP) among parents.

Secondary objectives

- To assess the association between the prevalence of dog bites among children and selected demographic variables.
- To evaluate the association between parental awareness regarding prevention and post-exposure prophylaxis with selected demographic variables

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4. Methodology and Sampling

A descriptive cross-sectional study was conducted to assess the epidemiological profile, management, and outcomes of dog bite cases.

Study Setting

The study was carried out at the Emergency Department of BGS GIMS, located in Kengeri Bangalore.

Study Period

Data were collected from patients presenting with dog bites between [February,2024] and [February,2026].

Study Population

All patients reporting with a history of dog bite during the study period were considered eligible.

Sample Size: A total of 20 dog bite cases were included in the study.

Data Collection: Information was collected using a pretested structured questionnaire and hospital records

5. Results

Statistical Analysis of Dog Bite Cases Among Children (n=20) in Kengeri, Bangalore

1) Age Distribution of Children

Age group	Number of cases	Percentage
1–5 years	5	25%
6–10 years	9	45%
11–15 years	6	30%
Total	20	100%

Interpretation: Among 20 children with dog bite injuries, the highest proportion (45%) was seen in the 6–10 years age group.

2) Gender distribution

Gender	Cases	Percentage
Boys	13	65%
Girls	7	30%
Total	20	100%

Interpretation: Dog bite cases were more common among boys (65%) compared to girls.

3) Site of bite injury among children

Site	Cases	Percentage
Lower limb	8	40%
Upper limb	7	35%
Face/head	5	25%
Total	20	100%

“Among 20 children affected by dog bite in Kengeri, Bangalore, the majority of cases were observed in the 6–10 years age group (45%). Boys accounted for 65% of cases. Lower limb injuries were the most common site of bite (40%). Descriptive statistics using frequency and percentage were used for analysis.”

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