



A Study to Assess the Level of Knowledge Regarding First Aid Management of Dog Bite Among General Population at Selected Community, Thrissur with a View to Develop an Information Booklet

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Abstract

Background: In India, the annual estimated number of dog bite is 17.4 million, leading to estimated 18,000–20,000 cases of human rabies per year. In Kerala, more than one lakh people have been bitten by dogs in 2015–2016, Kerala is estimated to have a stray dog population of 2.5 lakh. In Thrissur the past 5 years, more than 5.54 lakh people were attacked by stray dogs. A dog bite can lead to rabies or tetanus infection. First aid management and immediate medical care is required when the bite is from a dog that has, or might have, rabies.

Aim of the Study: The study aims to assess the level of knowledge regarding first aid management of dog bite among general population.

Methods: Fifty peoples in Eravimangalam, ward-14 of Nadathara Grama Panchayat are included in the study.

Results: Only 2% of the population are having adequate knowledge and 68% have moderate knowledge.

Conclusion: The study findings can be used to improve the knowledge regarding first aid management of dog bite in the general population.

Key words: Dog bite, knowledge, first aid management, general population.

INTRODUCTION

Health has been declared as a fundamental human right national governments all over the world are striving to expand and improve their health care service to overcome a continuous threat from emergence diseases. The WHO reports, all over world, there are 4.5 million cases which are bitten each year

by dogs and about 30,000 death every year that means 67% deaths which occurs in world.^[1] Rabies is one of the oldest recognized diseases affecting humans and one of the most important zoonotic diseases in India. Rabies is endemic in India, a vast country with a population exceeding 1.02 billion, and a land area of 3.2 million km². In India, about 15 million people are bitten by animals, mostly dogs, every year and need most exposure prophylaxis. Since 1985, India has reported estimated 250,00–30,000 human deaths from rabies annually. The majority of people who die of rabies are people of poor or low-income socioeconomic status and school age children.^[2]

In India, the annual estimated number of dog bite is 17.4 million, leading to estimated 18,000–20,000 cases of human rabies per year.^[3] In Kerala, more than one lakh people have been bitten by dogs in 2015–2016, Kerala is estimated to have a stray dog population of 2.5 lakh.^[4] In Thrissur the past

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5 years, more than 5.54 lakh people were attacked by stray dogs in Kerala. Forty-two persons were killed in the attacks from 2013 to 2017.^[5]

Rabies leads to the death of roughly 55,000 individuals a year, with most of the causes because of dog bites Research, 2019. Doghouse {owners|homeowners} typically oppose protecting rules won't stop bites and attacks and/or their rights as dog owners and being infringed. Everyday a variety of individual's victim dog bites regarding 30,000 individuals die due to zoonosis annually that accounts for 80% of 36,000 deaths reported to the World Health Organization. In India, 96% of are zoonosis due to a bite from dogs that square measure largely stray and unknown.^[6]

MATERIALS AND METHODS

Problem statement

A study was to assess the level of knowledge regarding the first aid management of dog bite among the general population at selected community, Thrissur with a view to develop an information booklet.

Objectives

The objectives of this study were as follows:

- 1) To assess the level of knowledge regarding first aid management of dog bite among the general population.
- 2) To associate the level of knowledge regarding first aid management of dog bite among the general population with their selected demographic variables
- 3) To prepare and distribute an information booklet regarding first aid management of dog bite among the general population.

Assumptions

- General population may have some knowledge regarding the first aid management of dog bite.
- Selected demographic variables may have an influence on the knowledge regarding first aid management of dog bite.

Research approach

This study was quantitative approach.

Research design

This study was descriptive research design.

Variables

Sociodemographic variables

Age, religion, education, marital status, area of residency, type of family, family history of dog bite, and pet dog in family.

Research variables

Knowledge regarding dog bite and it's management.

Setting of the study

Eravimangalam ward-14 of Nadathara Grama Panchayat, Thrissur.

Sample and sampling technique

The 50 samples were selected by convenience sampling technique.

Inclusion criteria

The inclusion criteria were included in the study:

- One person from one family will be included in the study.
- People who are at the age group of 20–65 years.
- People who are willing to participate and available during data collection.

Exclusion criteria

The exclusion criteria were excluded from the study:

- People who are unwilling to participate in the study.
- People who are not present during the data collection.
- People who are chronically ill

Tool/Instruments

A research tool is a device used to measure the concept of interest in a research project. For the present study, following tools are used:

Tool 1: Demographic variables of general population include age in years, gender, religion, educational qualification, marital status, area of residency, type of family, occupation, family history of dog bite, pet dogs in family, previous knowledge regarding first aid management of dog bite, and participation in any education program regarding first aid management of dog bite.

Tool 2: Structured knowledge questionnaire regarding first aid management of dog bite.

Method

The study was conducted according to the following steps:

- Approval from the ethical committee was obtained followed by administrative permission for conducting the study.
- The tool was developed by the researcher, after a review of recent relevant literature.
- After obtaining content validity from experts, the study was conducted among staff nurses by following the inclusion and exclusion criteria.
- The collected data were analyzed by descriptive statistics.

RESULTS

Section I

The data on demographic variables

- Majority of samples belong to 36–40 years
- There are 36% males and 64% females in the general population.
- 64% belongs to Hindu religion.
- 46% of the general population having high school education and only 8% are postgraduates.
- Majority (82%) of the general population are married
- All samples were living in villages.

- Majority (42%) of the samples were in the nuclear family.
- 12% of the general population have a history of dog bite in the family
- 22% of the general population have rearing of pet animals in home
- 38% of the general population have knowledge regarding the first aid management of dog bite
- 98% of the general population have a history of participation in any awareness programs.

Section II

Data on the level of knowledge regarding first aid management of dog bite among the general population.

Table 1 shows that majority of the subjects have moderate level of knowledge (68%).

Section III

Data on the association between the level of knowledge regarding first aid management of dog bite among general population with their selected demographic variables was analysed by using chi square test.

The study finding revealed that there is a significant association between knowledge regarding first aid management of dog bite among general population with their selected demographic variables such as history of dog bite ($\chi^2 = 7.68$, TV = 5.99) and previous knowledge regarding first aid management of dog bite ($\chi^2 = 6.688$, TV = 5.99). Other demographic variables are age ($\chi^2 = 2.843$, TV = 3.841), gender ($\chi^2 = 1.4924$, TV = 3.841), religion ($\chi^2 = 0.3301$, TV = 3.841), education ($\chi^2 = 2.6559$, TV = 5.99), marital status ($\chi^2 = 7.2277$, TV = 15.51), residence ($\chi^2 = 2.613$, TV = 9.49), family structure ($\chi^2 = 2.786$, TV = 5.99), Did you have any pet animals at home ($\chi^2 = 2.801$, TV = 5.99), and participation in any awareness programs ($\chi^2 = 0.514$, TV = 3.84).

DISCUSSION

The discussion is based on the objective of the study, the first objective is to assess the level of knowledge regarding first aid management of dog bite among the general population.

The analysis of the study insisted that in the general population 2% (1) were having adequate levels of knowledge, 68% (34) of them were having moderate knowledge, and 30% (15) were having poor knowledge.

A cross-sectional study was conducted by Digafe *et al.* to assess the knowledge, attitude, and practice toward rabies

in rural household heads of Gondar Zuria District, Ethiopia. The study was conducted in the year 2013. A structured questionnaire was used to collect the data through face-to-face interviews among 400 respondents. The results of the study showed that, almost all (99.3%) of the surveyed individuals were aware of the disease rabies. Rabies is a fatal disease in humans by 67.8% of the respondents, while 27.8% believe that it is a treatable disease. The need for immediate treatment after exposure was mentioned by <1/2 (47.4%). Following the dog bite, only 30.7% practiced washing of the wounds with water as first aid. The study concluded that knowledge and practices in prevention of rabies were limited.^[7]

The second objective is to find the association between the level of knowledge regarding first aid management of dog bite among general population with their selected demographic variables.

A cross-sectional study was conducted by Natampaka and Nyaga in 2019. The study was based on the knowledge, attitudes, and practices regarding rabies and its control among dog owners in Kigali city, Rwanda. The study aimed to understand the knowledge, attitudes, and practices (KAP) of rabies and its control among dog owners in Kigali city of Rwanda. A two-stage random sampling procedure was used to select the participants. The result showed that 81.8% knew that regular vaccination of dogs helps to prevent dog transmitted human rabies and 43.1% and 26.3% were aware that rabies in humans and in dogs is fatal once clinical symptoms which have shown, respectively. Only 69% would observe a dog for 10 days after it bites a man or an animal. Approximately 20.4% were familiar with appropriate cleaning of dog-bites wounds, and 20.6% knew that puppies could receive rabies vaccination before they are 3 months old.^[8]

As per the third objective to prepare and distribute an information booklet regarding first aid management of dog bite among the general population.

A study was to evaluate the effectiveness of an information booklet on knowledge regarding management of dog bite among the rural population, Karad. Study conducted by Stephen *et al.* They used an evaluative approach and pre-experimental design for study. Sample size is 100; simple random sampling technique is used and concluded that though subjects know about rabies transmission, and post exposure prophylaxis, well planned awareness program must be strengthened to increase the vaccination after dog bite and type of first aid, severity of bite, thorough wound washing for 10–15 min with soap and water immediately after dog bite, administration of tetanus toxoid, vaccine awareness, immediate active immunization by consulting physician, not closing the dog bite wound, and need of regular immunization is important.^[9]

Table 1: Frequency and percentage distribution of sample according to knowledge level $n=50$

Level of knowledge	Frequency	Percentage
Poor knowledge	15	30
Moderate knowledge	34	68
Adequate knowledge	1	2
Total	50	100

CONCLUSION

Dog bite is a zoonotic disease; it can lead to rabies or tetanus infection. The bite of wounds from dogs can range from minor to life-threatening and need to be treated quickly to prevent infection or traumatic complications. Immediate care is required when the bite is from a dog that has, or might have, rabies. Not having had a tetanus shot in five or more years increases tetanus risk and a booster shot may be recommended.

The results shows that only (2%) of the population are having adequate knowledge. Moreover, the majority of the subjects have moderate knowledge (68%). About 30% of them are having poor knowledge (Table 1). The study findings can be used to improve the knowledge regarding first aid management of dog bite in the general population. The findings of the study have several implications in the field of nursing service, education, and research.

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