



A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge of Mothers Regarding Management of Dog Bite and Prevention of Rabies among Children Undergoing Treatment in the Anti-Rabies Vaccine Outpatient Department at Institute of Child Health and Hospital for Children, Egmore, Chennai-8

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Abstract

Worldwide dog bites are becoming a significant public health problem and the annual frequency of dog bite injuries are more common in children. Rabies is a fatal condition with no cure, but there are preventive interventions to reduce its burden. The present study aimed to effectiveness of structured teaching programme on knowledge of mothers regarding management of dog bite and prevention of rabies among children. 60(mothers of children with dog bite) samples in quantitative approach. Pre experimental one group pretest posttest design, sample selection was done by Purposive sampling technique. Pre-existing knowledge was assessed by using semi structured questionnaires. After 7 days post-test was conducted by using same tool. The result shows in posttest after structured teaching programme, mothers were gained 21.05% more knowledge score than pretest score and the mean difference is 10.92 by using generalized McNemar's chi-square test, it is statistically significant. In pretest mothers were having 10.13 score where as in post -test they were having 21.05 score. Difference score is 10.92. This difference is large and it is statistically significant.

Keywords: dog bite, rabies, mothers of children, anti-rabies vaccine

INTRODUCTION

A dog bite is a bite inflicted upon a person, a group of persons or another animal by a dog. One or more successive bites is often considered a dog attack. The majority of dog bites do not result in injury, disfigurement, infection or permanent disability. Another type of dog bite is the 'soft bite' displayed by well-trained dogs, puppies and in non-aggressive play. Domestic dogs are the main vectors of the disease causing 94% of human rabies through bites. The prevalence of the disease is highly influenced by the density of unvaccinated dog populations. In addition to the mortalities and Disability Adjusted Life Years (DALYs), the public health burden of rabies extends to the cost of disease control. The fear of the disease and uncertainty of outcome cause psychological trauma on the victims of animal bites. No country has as many stray dogs as India, and no country suffers as much from them. Free-roaming dogs number in the ten million and bite millions of people annually, including vast number of children. An estimated 20,000 people die every year from rabies infections. The law which forbade the killing of dogs, the stray population has increased so much. The officials across the country have expressed alarm regarding the increase of incidence in dog bite.⁷ Worldwide dog bites are becoming a significant public health problem and the annual frequency of dog bite injuries in children is estimated to be 22 per 1000 children of which less than half of them are reported in medical facilities. To

study the period prevalence of dog bites in children, its risk factors and treatment seeking behaviour¹³. India has the highest rate of rabies in the World primarily because of stray dogs, whose number has greatly increased since a 2001 law forbade the killing of dogs. 20,000 people are estimated to die every year from rabies in India-more than a third of the global rank. The annual incidence of animal bite was 1.7%, it was more in children (2.5%)and 68% of them were males. Only 39.5% of bite victims washed the wounds with soap and water and about 46.9% took anti-rabies vaccination.

Habib Ovais¹, Hafeez Adil et al.,(2017) conducted a study focusing on the epidemiological profile, mechanism, circumstances and management of dog bite injuries in the state of a developing country. One hundred twenty-eight children of dog bite injuries were studied over a period of 2½ years. Most of the patients (52.3%) were in the age group of 1-6 years. Face was the commonest affected organ by the dog bite of about 45.3% children aged between 1-6 years. Limbs were most commonly affected in older age group. Dog bite incidents can be decreased or prevented if the number of street dogs in our state is reduced, as this being the prime reason for the increasing dog bite incidents. Proper wound management results in excellent cosmetic outcome especially in children.

Nasim Ilyas, Kashif Rahim, Zafar Latif, (2017) conducted a descriptive study on medical record of dog bite cases between 2011 and 2013 to assess the incidence of dog

bite in Chountra, District Rawalpindi, Province Punjab, Pakistan. Total numbers of cases were 150. Most of the cases were registered during summer especially in the months of May to August. Most of the victims were male and found to be more common in children. The commonest site of the dog bite was lower limb. To conclude, in rural setup of Pakistan dog bite cases are considerably high and impose significant burden on health service despite the fact that it is preventable.

2. OBJECTIVES

1. To assess the pre-test and post-test existing knowledge of mothers regarding management of dog bite and prevention of rabies in children.
2. To evaluate the effectiveness of structured teaching programme regarding management of dog bite and prevention of rabies in children.

3. MATERIALS AND METHODS

Quantitative research approach, the research design adopted for the study was Pre experimental design (one group pre-test and post-test design) with manipulation, and no randomization and no control group. The study was conducted at the Institute of Child Health and Hospital for Children, Egmore, and Chennai-08. The department was started in 1948, at Government General Hospital and then upgraded in 1957 for public service. It is an 867 bedded children hospital with tertiary care centre, referral, Nodal centre for IMNCI, and also research centre. 60 mothers of children with dog bite who met with the inclusion criteria. Non Probability purposive sampling technique was adopted for the study. Target Population Are Mothers who have children with history of dog bite in Anti-Rabies Vaccine at Institute of Child Health and Hospital for Children, Egmore, and Chennai-08. Accessible Population Are Mothers of children with the history of dog bite and who are available during the period of data collection. Independent Variables Structured teaching programme on management of dog bite and prevention of rabies. Dependent Variable Knowledge of mothers on management of dog bite and prevention of rabies

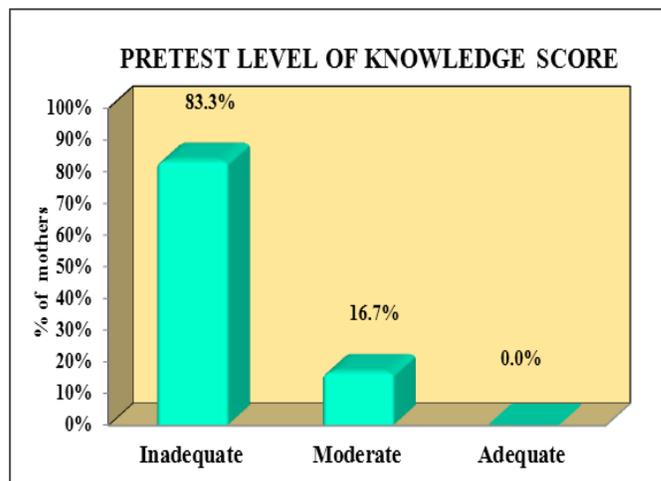
4. RESULTS

SECTION I

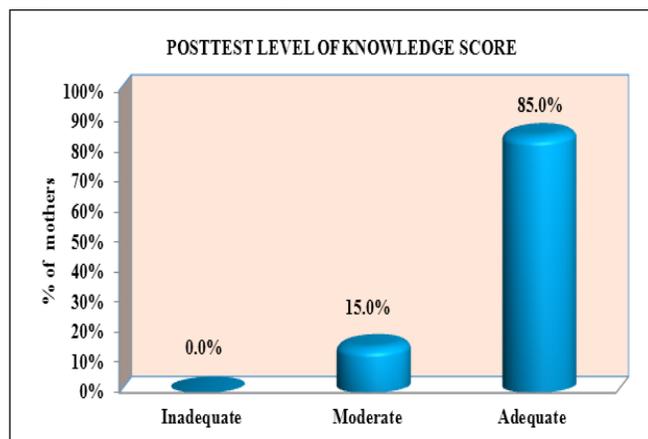
Out of 60 samples, Age of the mothers 43.3% were 4 to 8 years, Gender of the child 63.3% were male, Birth order of the first child is 51.7%, Education of mother 35.0% were Primary school, Occupation of mother 48.4% were House wife, Area of residence 60.0% were Urban, Doesn't have pet animals in home were 78.3% of home, Type of pet animals 78.3% were no pet, Type of dog you have been bitten were 56.7% by Stray dog, have you registered dog in blue cross were 77.8%

SECTION II

83.3% of the mothers are having inadequate level of knowledge score and 16.7% of them having moderate level of knowledge score and none of them are having adequate level of knowledge score.



None of the mothers were having inadequate level of knowledge score and 15.0% of them were having moderate level of knowledge score and 85.0% of them were having adequate level of knowledge score.



On an average, mother's knowledge were improved from 10.13 to 21.05 after the administration of structured teaching programme.

Before STP, 83.3% of the mothers were having inadequate level of knowledge score and 16.7% of them having moderate level of knowledge score and none of them were having adequate level of knowledge score.

After STP, none of the mothers were having inadequate level of knowledge score and 15.0% of them having moderate level of knowledge score and 85.0% of them were having adequate level of knowledge score.

Effectiveness and Generalization of Structured Teaching Programme

	Max score	Mean score	Mean Difference of knowledge gain score with 95% Confidence interval	Percentage Difference of knowledge gain score with 95% Confidence interval
Pretest	25	10.13	10.92	40.52%
Posttest	25	21.05	(10.23 – 11.60)	(40.92% –46.40%)

Shows the effectiveness of structured teaching programme among mothers.

On an average, in posttest after having STP, mothers were gained 40.52% more knowledge score than pretest score. Differences and generalization of knowledge gain score between pretest and posttest score were calculated using and mean difference with 95% CI and proportion with 95% CI.

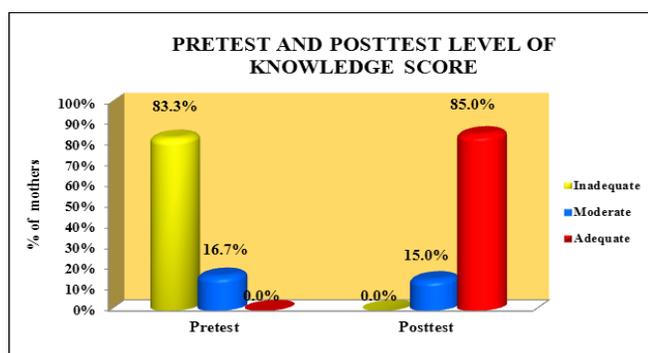


Figure shows comparison of pretest and posttest level of knowledge score.

5. DISCUSSION

During pretest score of knowledge regarding dog bite among mothers of children, they were having maximum knowledge in **Etiology** (51.00%) and minimum knowledge score in **Prevention** (35.00%). Overall pretest percentage of knowledge score is 40.52% among mothers. During posttest score of knowledge regarding management of dog bite among mothers of children they were having maximum knowledge in **Signs and Symptoms** (93.00%) and minimum knowledge score in **Management** (80.25%). Overall post-test percentage of knowledge score is 84.20% among mothers. **M. Lakshmi Devi(2014)** A similar study conducted a pre experimental study approach and one group pretest and posttest design was adopted for the present study. A total of 50 subjects were selected by non-probability convenience sampling method. A structured questionnaire and teaching programme was developed and administered to collect the data. The results revealed that, in pretest assessment among elementary school children 90% had inadequate knowledge, 6% had moderate knowledge, 4% had adequate knowledge on dog bite. In posttest assessment 6% had inadequate knowledge, 20% had moderate knowledge, 74% had adequate knowledge on dog bite. In overall present mean

was 10.14, standard deviation was 4.025 and posttest mean was 24.98, standard deviation was 3.787 with 't' value of 20.574 which is significant at 0.01 level indicates structured teaching programme was effective to increase the knowledge regarding dog bite. This shows effectiveness of structure teaching programme intervention.

6. CONCLUSION

Nursing personnel must have holistic knowledge regarding bronchial asthma in children. Nurses play a vital role in the teaching aspects of management and control measures of asthmatic attack in children among mothers.

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Authors Contribution

All the authors actively participated in the work of the study. All authors read and approved the final manuscript.

Conflict Of Interest

The authors declare no conflict of interests.

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