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Original Research Article

Creating awareness of rabies in pupil of Z.P. High School in Kallur (V), Kurnool (Dist), Andhra Pradesh

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ABSTRACT

Background: Rabies is a deadly disease but mostly preventable. Poor public awareness towards rabies is considered as one of the bottle necks for the prevention and control of the disease. The objectives of the study were to create awareness of rabies in pupil of Z.P. High School in Kallur (V), Kurnool (Dt) and to formulate Recommendation to school and concerned authorities
Methods: A longitudinal intervention study conducted in Z.P. High school from a period of November 1st 2011 to December 31st 2011 among 6th to 9th class school children. And sample size was 160 students. A predesigned, semi structured questionnaire consisting of 28 questions was given to assess their level of awareness regarding rabies.
Results: Of the 160 school children interviewed, 98 (61%) of them were males and 62 (38%) female students. The major source of information regarding occurrence of rabies 54 (33.7%) is schools, awareness regarding rabies due to dog bite before pre educational intervention is only 65 (40.62%), only 25% were aware of T.T vaccination, 41% were aware of anti-rabies vaccination. 59.3% were aware of cleaning of wound. Only 36 to 38% were aware of dog vaccination.
Conclusions: In conclusion, this study has shown that the level KAP about clinical signs of rabies, prevention methods after suspected animal bite, the first action taken after rabid dog bite is not so good in the school, An intervention was planned in three sessions, and students were educated on how to identify rabid dogs, preventive measures like cleaning of wound after bite, dog vaccination, human vaccination with anti-rabies vaccine and T.T vaccine.

Keywords: Awareness, Rabies, Pupil of Z.P. High School

INTRODUCTION

Rabies is a fatal but easily preventable disease. It has worldwide distribution, Humans and nearly all mammals are susceptible to rabies.[1] In spite of presence of pre and post exposure prophylaxis, it is still a significant cause of public health problem in India. The World Health Organization (WHO) supports targets for elimination of human rabies transmitted by dogs in South-East Asia by 2020.[2] In India, animal bites in humans are a public health problem and an estimated 17.4 million animal bites occur annually.[3] Since 1985, India has reported an estimated 25,000–30,000 human deaths from rabies annually.[4] The majority of people who die of rabies are people of poor or low-income socioeconomic status.[5] Most animal bites in India (91.5%) are by dogs, of which about 60% are strays and 40% pets. The incidence of animal bites is 17.4 per 1000 population. A person is bitten every 2 seconds, and someone dies from rabies every 30 minutes. The annual number of person-days lost because of animal bites is 38 million, and the cost of post bite treatment is about $25 million.[4] Dog bites are

common in children because they play with dogs and are bitten accidentally.

The no. of dog bite cases which were admitted in our ID ward were 39 from May 2010 to December 2011. In Kallur PHC area total no. of dog bite OP cases were 67 from November 2015 to November 2016, Out of which 22 cases were below 15 yrs.

The present study was conducted to assess the knowledge regarding rabies among students and also improvement in knowledge after educating them regarding rabies because if the children of school going age were educated, knowledge in general population will also improve and thus reduction in rabies mortality, morbidity of dog bite cases.

Objective

- To know the knowledge regarding rabies among students of government school in Nandyal, Kurnool (Dt).
- To create awareness of rabies in pupil of government school in Nandyal, Kurnool (Dt).
- To formulate recommendation to school and concerned authorities.

METHODS

***Study design**:* Longitudinal interventional study.

Study place

Zillah Parishad High School of Primary health centre, Kullur area, Kurnool district, Andhra Pradesh.

Study population

All the students studying in Zillah Parishad School from 6th class to 9th class.

Inclusion criteria

Inclusion criteria were students who were present on all the days- when data was collected, awareness classes were conducted and when post interventional data was collected; Students who gave consent to participate in the study.

Exclusion criteria

Exclusion criteria were students studying in 10th class were exempted due to preparation of exams; students who did not give consent to participate in the study.

Study period

During November 1st week, 2017, pre interventional data regarding knowledge of rabies was collected, then from November 2nd week to December 2nd week, awareness programme was conducted, then in December 3rd and 4th week, after awareness programme, Data was collected again.

Sample size: 160 students.

Sampling method

There were 6 schools under our PHC Kuller area, among which one school was selected randomly by lottery method. All 6th to 9th class students were included in this study.

Ethical clearance

Ethical clearance from the ethical committee of Kurnool Medical College, Kurnool, was taken,Informed consent from participants, school head master and from Principal (KMC) &DMHO (knl) was taken.

Methodology

Out of the 6 Schools in PHC Kuller area, one School was selected randomly by lottery method that was Zilla Parishad School Kuller, which was near our Primary Health Center. Once the school was Selected, Permission from the School authorities was taken after explaining them regarding the purpose and procedure of the conduction of the study. All the students studying from 6th class to 9th class were included in the study. The total Procedure and Purpose of the study was explained in each class room and after taking oral consent, from each student and after ensuring their presence for 3 weeks during the 3 sessions of conduction of the study the students were included in the study.

Pre-intervention study

It was done by using structured questionnaire consisting of 28 multiple choice questions that tests their level of awareness regarding rabies. These questionnaires were distributed to each student, then after 45 minutes the filled questionnaires were collected and entered in Microsoft excel.

Intervention

It was done by group communication. Each group consists of 20–30 children. 45 min education was given using audio visual aids about symptoms and prevention and precautions of rabies. Which included one session; similarly 3 sessions were conducted for 3 weeks.

Post-intervention study

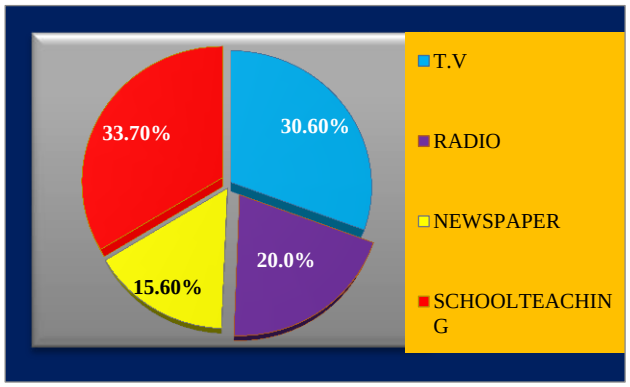
After 3 weeks of educational sessions again the same structured questionnaire with 28 multiple choice questions were distributed and then the filled questionnaire was collected and entered in Microsoft excel as post interventional awareness.

Statistical analysis

Pre intervention and post interventional data was entered in Microsoft Excel and then analyzed using percentages, proportions and Chi square tests to find the significance. Tables were formed using Microsoft Excel.

RESULTS

Among 160 school children interviewed, 98 (61%) of them were males and 62 (38%) female students.



Among the school children, 54 (33.7%) of them were aware about rabies due to teachings in the school, 49(30.6%) were aware due to watching the awareness programmes in Television, 32(20.0%) were due to Radio and next newspaper 25 (15.6%) (Figure 1).

Table 1: Awareness regarding cause of rabies before and after educational intervention.

Awareness regarding	Pre test Present No (%)	Post test Present No (%)	P value
Dog bites	65 (40.62)	160 (100)	<0.05

Awareness of rabies due to dog bite before educational intervention was only 40.62% and after educational intervention it was 100%, improvement in awareness was statistically significant (Table 1).

Table 2: Awareness regarding stray dog vaccination before and after educational intervention.

Awareness regarding	Pre test Present No (%)	Post test Present No (%)	P value
Stray dog vaccination	62 (38.75)	160 (100)	<0.05

Awareness regarding stray dog vaccination before educational intervention was only 38.75% and after educational intervention it was 100%, there was statistically significant improvement in awareness regarding stray dog vaccination (Table 2).

Table 3: Awareness regarding pet dog vaccination before and after educational intervention.

Awareness regarding	Pre test Present No (%)	Post test Present No (%)	P value
Pet dog vaccination	58 (36.25)	160 (100)	<0.05

Awareness regarding pet dog vaccination before educational intervention is only 36.75% and after educational intervention it is 100%. There was statistically significant improvement in awareness regarding pet dog vaccination (Table 3).

Table 4: Awareness regarding first aid management before and after educational intervention.

Awareness regarding	Pre test Present No (%)	Post test Present No (%)	P value
Cleaning of wound	95 (59.3)	160 (100)	<0.05
Anti-rabies vaccine	67 (41.87)	160 (100)	<0.05
T.T vaccination	40 (25)	160 (100)	<0.05

Awareness before educational intervention, regarding cleaning of wound was only 59.3%, Anti rabies vaccination was 41.87% and T.T vaccination was only 25% and after educational intervention all the children were aware about cleaning of the wound, anti-rabies vaccine and T.T Vaccination, which was statistically significant (Table 4).

Table 5: Awareness regarding characteristic features of rabid dog before and after educational intervention.

Awareness regarding	Pre test Present No (%)	Post test Present No (%)	P value
Characteristic features of rabid dog	52 (32.5)	160 (100)	<0.005

Awareness regarding characteristic features of rabid dog before educational intervention is only 32.5% and after educational intervention it is 100%, which was statistically significant (Table 5).

Only 42.5% of students were aware that rabies is a disease which is highly lethal and after educational intervention all the students became aware about the fatality of the disease. The improvement in the knowledge was quiet significant (Table 6).

Table 6: Awareness regarding fatality of rabies, if treatment is not taken before and after educational intervention.

Awareness regarding	Pre test	Post test	P value
	Present No (%)	Present No (%)	
Fatality of rabies, if treatment is not taken.	68 (42.5)	160 (100)	<0.005

DISCUSSION

In rabies endemic countries animal bites are very common, hence correct knowledge regarding animal bite wounds, its prevention is essential for reducing the incidence of rabies.

In the present study it was observed that the overall perception regarding rabies was poor before educational intervention. Out of 160 students, the awareness of rabies due to dog bite before educational intervention is only (40.62%) which is less than the results found in school children of Samaru, Zaria (65.7%), Ravish Hardenhalli (66.9%), in Srilankan study (89.6%), Ethiopia (75.6%), Bahir town (46.7%) 98.6%.[6-10] Awareness is less in our study probably due to lack of conduction of educational activities about rabies in the school.

In the present study, The awareness level of study subjects with regard to stray dog vaccination is only 38.75% which is comparable to the study conducted by Lai, Rawat, et al study conducted among the residents in Delhi households, where 49.2 per cent knew that vaccination of animals could prevent rabies [11,] in a study conducted in Nigeria (75.5%) knew regarding stray dog vaccination, awareness regarding stray dog vaccination is quiet less (5.7%) in community of Gujarat.[6]

Awareness regarding pet dog vaccination is only 36.25% in the present study, the results are very poor in comparison to Ravish et al study of 92.7%, Srilankan study (76.1%), and Ethiopian study (43.6%), Samara, Zaria, Nigerian study (75.5%) and results are comparable with urban slums of Delhi (38.5%).[6-9,11]

In the present study it was observed that awareness regarding cleaning of wound was only 59.3%, anti rabies vaccination is 41.87% and T.T vaccination is only 25% and after educational intervention all were 100%, which was statistically significant.

Awareness regarding cleaning of wound, is 59.3%, awareness is quiet better in the study conducted by Shankaraiah (80.7%), Bahir dar town of Veterinaria (70.8%), Addis Ababa study in Ethiopia (85.7%), urban slums of Delhi (80%) our results are quiet better than the study conducted by Gujarat (31.1%).[7,9-12] In a study conducted by Singh et al, 31.1% persons endorsed application of first aid measures such as washing, antiseptic bandaging and T.T. in case of animal bite.[12]

Awareness regarding antirabies vaccination was 41.87% in the present study, awareness is very poor compared to Ravish et al study (66.9%), Srilankan study (88.1%), Addis Ababa study in Ethiopia (85.7%), urban Slums of Delhi (80%).[7-9,11] Our results are similar to the study conducted in Bahir dar town of Veterinaria (41.2%).[10]

Awareness regarding T.T. vaccination after dog bite was 25% in the present study the results are similar to the study conducted by a Rural community of Gujarat.[12]

In the present study, Awareness regarding characteristic features of rabid dog is only 32.5%, our results are quiet comparable with the study conducted in Ethiopia, by Addid ababa (34%) [9] and the study conducted in Gujarat (37.7%), However in the study conducted by Tadesse Guadu, Anmaw Shite, awareness was quite good where 76.8% of the respondents were aware of common clinical signs of rabies in animals.[9]

The knowledge regarding fatality of rabies is 42.5% in the present study which is quiet poor compared to Tadesse Guadu, Anmaw Shite study, which is 94.9%, Srilankan study (78.7%).[8,10] In the study conducted by Addis Ababa, Ethiopia, the knowledge regarding fatality of rabies is much poorer that is 30.97%.[9]

The main source of information regarding rabies, in the present study was due to teachings in the school (33.7%), awareness programme in the television (30.6%), radio (20%), and newspaper 25 (15.6%). The results indicate that school is the major source of knowledge in the children.

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