



Original Research Article

## Perception of Women Self Help Group (SHG) Members Regarding Rabies and its Prevention in Urban Mysore

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### ABSTRACT

**Background:** Each year 20,000 human deaths occur in India, which constitutes one third of the global burden. Women self help group (SHG) members; represent a self motivated group in the society assessing their perception regarding rabies gives an idea about overall community perception.

**Objectives:** To assess the perception of women Self Help Group Members regarding Rabies and its prevention.

**Materials and Methods:** This cross sectional study was conducted in the Urban Field Practice area of JSS Medical College, Mysore for the period of one month. 110 women self help group members were included in the study. The socio-demographic factors and perception regarding Rabies and its prevention were collected in a pre tested structured Performa by interview technique.

**Statistical analysis used:** Descriptive statistical measures like mean, standard deviation and percentages

**Results:** Of the total 110 subjects enrolled in the study, majority 43 (39.1%) were in the age group of 35-44 years. Overall perception regarding rabies and its prevention was found to be poor in 59 (53.6%). 28(25.5%) were aware of disease rabies, seven (25.0%) replied that rabies is a fatal disease and 31 (28.2%) replied that the dog/animal bite should be washed with soap and water.

**Conclusions:** The overall perception regarding rabies and its prevention among women self help group members was found to be poor. This calls for focused behavior change communication (BCC) activities that will help in prevention and control of the disease.

**Keywords:** Rabies, Women Self Help Group, Perception, BCC, Anti Rabies Vaccine

### INTRODUCTION

Rabies a disease as old as our civilization continues to be the most feared of all communicable diseases. Despite the availability the state-of-the-art tools which ensure cent percent protection against rabies, India is the largest contributor to rabies mortality in the world. <sup>(1)</sup> An estimated

55,000 human rabies deaths occur every year globally, of which an estimated 20,000 human rabies deaths occur annually in India which constitutes 36% of the rabies deaths in the world. 17.4 million animal bite cases occur annually which accounts to animal bite incidence rate of 1.7%. <sup>(2)</sup> There are many myths and misconceptions associated

with wound management. People have more faith in the indigenous medicines that are of unproven efficacy and not washing wounds properly because of the fear that it would get infected. The importance of proper wound care, post exposure vaccination with modern tissue culture vaccines and administration of human rabies immunoglobulin, where indicated must be reinforced. (3,4,5) Women self help group (SHG) members act as a self motivated group in the society. They are expected to have higher level of interaction with people in the community at various occasions. Thus assessing their perception regarding rabies prevention can act as a first step towards overall community perception. These SHG members can further be trained and effectively utilized to enhance rabies awareness in the community. In this background the present study was undertaken with objective to assess the perception of women Self Help Group Members regarding rabies and its prevention.

## **SUBJECTS AND METHODS**

This cross sectional study was conducted in the urban field practice area of JSS Medical College, Mysore for the period of one month (September 2012). A total five self help groups existing in the above mentioned area constituting 120 members were initially explained regarding the purpose of the study. Among them 110 members who gave consent to participate were included in the study. Details regarding the socio-demographic characteristics, perceptions regarding rabies and post exposure prophylaxis were obtained in a pretested structured proforma by interview technique.

### ***Statistical Analysis***

The data was entered in MS excel-2010 and analyzed using descriptive statistical measures like mean, standard

deviation and percentages. The overall assessment of perception was done by giving scores, 1 for correct response and 0 for the incorrect responses. Total score of each respondent was obtained and the responses were categorized as good if they have scored 75-100%, satisfactory for 50-75% and poor for less than 50% of the total score.

## **RESULTS & DISCUSSION**

### ***General characteristics of study subjects***

Among 110 women SHG members enrolled in the present study majority 43 (39.1%) were in the age group of 35-44 years with mean age of  $36.2 \pm 9.4$  years. 99 (90.0%) subjects were literates, 91(82.7%) were not working (housewives) and 109 (99.0%) were Hindus by religion.

### ***Perception regarding rabies***

Among 110 study subjects, overall perception of women self help members regarding rabies and its prevention was found to be good in 17 (15.4%), satisfactory 34 (30.1%) and poor among 59 (53.6%) of subjects. 28(25.5%) were aware of disease rabies, of whom eight (28.6%) knew that rabies is caused by virus, interestingly only seven (25.0%) replied that rabies is a fatal disease. All of them were aware of dog as the animal transmitting rabies but only six (21.4%) and four (14.2%) had opined rabies can also be transmitted by cats and monkeys respectively. 27 (96.4%) replied that bite by dogs/ animals as the mode of transmission of rabies, whereas none of the subjects were having knowledge regarding other modes of transmission. 15 (53.7%) were not aware of symptoms of rabies in man and 17 (60%) were aware that hyper-salivation as a symptom of rabies in dogs.

### ***Perception regarding post exposure prophylaxis***

Out of 110 study subjects, only 31 (28.2%) replied that the dog/animal bite should be washed with soap and water another 28 (25.5%) replied as application of dettol and savlon to the wound. As much as 33 (28.2%) were of wrong perception that the mud and lime should be applied to the wound. 49 (44.6%) had replied that there is a need to take 7-14 injections of antirabies vaccine following animal bite whereas 40 (36.4%) knew about 3-5 doses of Anti Rabies Vaccine (ARV). 79 (71.8%) replied antirabies vaccines are administered around umbilicus. 47 (42.7%) knew that ARV can be administered by Intradermal route, 53 (48.2%) opined that pregnant women can receive ARV following dog/animal bite.

Only 34 (30.9%) were aware of pre exposure ARV and none of them were aware of Rabies Immunoglobulins.

51 (46.4%) of subjects were of perception that it is better not to tease the dog/animals for avoiding bite. 91 (82.7%) were aware of requirement of antirabies vaccination of animals for prevention of rabies in animals and man. Mass media like TV, radio and news paper were found to be the most common source of information regarding rabies.

Table 1. Overall perception regarding rabies and its prevention

Perception	Number	Percentage
Poor	59	53.6
Satisfactory	34	30.1
Good	17	15.4

Table 2. Perception regarding rabies and its prevention

Perception	Category	Number	Percentage
Aware of disease rabies (n=110)	Yes	28	25.5
	No	82	74.5
Organism causing Rabies (n=28)	Virus	08	28.6
	Bacteria	06	21.4
	Don't know	14	50.0
Rabies is a fatal disease (n=28)	Yes	07	25.0
	No	21	75.0
Animals transmitting rabies(n=28)	Dog	28	100.0
	Cat	06	21.4
	Monkey	04	14.2
Modes of transmission(n=28)	Bite	27	96.4
	Don't know	01	3.6
First aid following dog/animal bites (n=110)	Wash with soap and water	31	28.2
	Apply Dettol/savlon	28	25.5
	Turmeric powder	08	7.3
	Mud/lime	33	28.2
	Don't know	10	9.1
Dose of ARV following dog/animal bites (n=110)	1	08	7.3
	3-5	40	36.4
	7-14	49	44.6
	Don't know	13	11.8
Site of administration of ARV (n=110)	Arm/ front of thigh	07	6.6
	Gluteal	24	21.8
	Around umbilicus	79	71.8
Can ARV be given by Intradermal route (n=110)	Yes	47	42.7
	No	63	57.3
Can a pregnant woman receive ARV following dog/animal bites(n=110)	Yes	53	48.2
	No	57	51.8
Pre Exposure ARV(n=110)	Yes	34	30.9
	No	76	69.1
Rabies Vaccination in animals required(n=110)	Yes	91	82.7
	No	19	17.3
Source of information(n=28)	Friends/ Family members	10	35.7
	Media	13	46.4
	School	03	10.7
	Doctor	02	7.1

In the present study it was observed that the overall perception regarding rabies was poor. The similar observation was made by Ichhpujani et al. in their multi-centric study on KAP regarding management of dog bites in India <sup>(1)</sup> and Gino Matibag et al in Srilanka. <sup>(6)</sup> This can be attributed to the fact that low priority given for the disease as well as lack of active awareness activities. In the present study 28(25.5%) were aware of disease rabies, this is much lower than the observations of Gino Matibag et al. who found that majority of respondents (94.5%) had heard of rabies <sup>(6)</sup> and U. S. Singh where all subjects were aware of the disease <sup>(5)</sup> and Ichhpujani et al. only 68.7% people had heard about rabies. <sup>(1)</sup> This lower knowledge can be attributed to rare occurrence of the disease as well as regional variations in the nomenclature of the disease. In the present study knowledge regarding fatal nature of rabies was 7 (25.0%). This is in contrast to study of Gino Matibag et al. at Srilanka in which 78.7% respondents were aware that rabies is a fatal disease. <sup>(6)</sup> T R Behera et al. reported 87% of respondents knew that rabies is fatal. <sup>(9)</sup>

In the present study all the respondents knew that rabies is caused by dog bite. U. S. Singh et al. in their study pointed out that, 98.6% individuals knew about transmission of rabies by dog bites. <sup>(5)</sup> Ichhpujani et al observed that 60.7% respondents associate rabies with dog bite only. <sup>(1)</sup> The reason for this could be rabies in this area is commonly known as mad dog disease thus people think that rabies can be transmitted only by dog bites.

In the present study 31 (28.2%) respondents were aware that dog/animal bite wound should be washed with soap & water and 33 (28.2%) were of wrong perception that the mud and lime should be applied to the wound. This is similar to results of Ichhpujani et al. where only 360 (31.9%) people felt that washing the wound with

soap and water to be the best option. Application of indigenous products like chillies (11.4%), turmeric (5.6%), lime (6.8%), kerosene oil (2.3%), herbal paste (4.2%) to the wound were also suggested to be useful. <sup>(1)</sup> Agarwal N et al observed 42.4% of subjects prefer application of chilly on wound procured from the house of the dog owner can prevent rabies. <sup>(8)</sup> U. S. Singh et al noted that 31.1% persons endorsed application of first aid measures such as washing, antiseptic bandaging & TT in case of animal bite. <sup>(5)</sup>

In the present study 49 (44.6%) respondents replied that 7-14 doses of ARV should be taken following dog/animal bite and 79 (71.8%) replied antirabies vaccines are administered around umbilicus. In contrast U. S. Singh et al in their study observed that 86.6% individuals were aware about anti-rabies vaccine and 79% mentioned the need for 14 injections and 5.7% responded as 10 injections should be taken on abdomen. <sup>(5)</sup> Ichhpujani et al. observed that majority of the people were not aware of number of injections needed for treatment of animal bites. <sup>(1)</sup> This can be attributed to the deep rooted belief among people even after a decade of abolishing nerve tissue vaccine in the country that following dog bite 14 injections should be taken around the umbilicus which clearly shows inadequacy in the knowledge regarding post exposure prophylaxis. Present study revealing that media as a main source of information calls for maximizing this source in terms of health talks, documentary, special edition in news paper/dailies and novel ideas like health messages/SMS on mobiles by various mobile operators to sensitize the community at large.

The strength of the present study is that it focuses on the perception of fairly intellectual section of the society which is self motivated and in constant touch with

members in the community. Thus exploring their knowledge regarding rabies will give a picture of overall community perception. Various studies available in literature have concentrated on assessing knowledge at either community level or the health care providers but none of the published studies available on focus group like the one in the present study. This study endorses such organized groups can be utilized as link human health resource for rabies prevention after necessary training. This will in turn help in better community participation and effective way of spreading the knowledge about rabies as evident from the model of Adopt a village: a rural rabies prevention project at Bangalore. <sup>(10)</sup> The present study gives way for further studies with larger sample size for better generalizability of results.

## CONCLUSION

The overall perception of women self help group members regarding rabies and its prevention was found to be poor. The knowledge pertaining to fatal nature of the disease, animals transmitting, modes of spread, first aid, antirabies vaccination was largely inadequate and the recent spate of increase reports in the media about stray dog bite calls for an urgent need to work on focused Behavior Change Communication strategies towards improving the awareness regarding this dreaded disease in the community.

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