

Assess the Knowledge on First Aid Measures for Snake Bite among Farmers

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Abstract: *Farmers are the back bone of our India. Farmers contributing the 40% of the India total population, the future of our country depend on the health and wealth of the farmers. The farmers undergoing some accidental problems which lead to increase in mortality rate of which snake bite is one of the major health hazard for farmers. People at high risk of making contact with snakes are much less likely to fall victim to snakebite if they develop knowledge of snakes, their habits, and the timely and appropriate first-aid which can be applied to reduce the consequences of snakebites. Objectives: To assess the knowledge and practice on first aid measure for snake bite among farmers and to find out an association between the level of knowledge on first aid measures for snake bite with selected socio demographic variables. Methodology: Descriptive survey design was adopted for this study. The sample size for this study consisted of 60 farmers randomly selected with the use of convenient sampling technique from farmers in vadagal village. Results: out of 60 samples, 2(3.33%) have adequate knowledge; 31(51.67%) have moderate knowledge; 27(45%) have inadequate knowledge.*

Keyword: First aid measures, snake bite, farmers

1. Introduction

Farmers are the back bone of our India. Farmers contributing the 40% of the India total population, the future of our country depend on the health and wealth of the farmers^{1,2}. The farmers undergoing some accidental problems which lead to increase in mortality rate of which snake bite is one of the major health hazard for farmers. Snake bite is a common medical emergency and an occupational hazard, more so in tropical India, where farming is a major source of employment. Snakebite remains an underestimated cause of accidental death in modern India.

South Asia is the world's most heavily affected region, due to its high population density, widespread agricultural activities, numerous venomous snake species and lack of functional snake bite control programs. Despite increasing knowledge of snake venoms' composition and mode of action, good understanding of clinical features of envenoming and sufficient production of antivenom by Indian manufacturers, snake bite management remains unsatisfactory in this region³. Knowledge of the varied clinical manifestation of snake bite are important for effective management.

Snake bite is a common medical emergency and an occupational hazard, more so in tropical India, where farming is a major source of employment. India has remained notorious for its venomous snakes and the effect of their bites⁴. Every year, 50,000 Indians die in 2,50,000 incidents of snake bites, despite the fact that India is not home for the largest number of venomous snakes in the world, nor is there a shortage of anti- snake venom in the country^{5,6}. The main cause of this 'unacceptable incidence' of snake bite fatalities is that people try out all kinds of 'bizarre remedies' initially, instead of going to the nearest appropriate health facilities.

The identification of snake species is crucial for optimal clinical management, as it allows clinicals to choose the

appropriate treatment, anticipate complications, and thereby reducing mortality⁷. First aid is defined as "simple emergency medical care procedures intended for lay rescuers to perform before emergency medical professionals are available". Some of first aid measures are check that the snake is no longer around threatening the safety for all keep the victim and reassure them, immobilize the bitten limb with a splint or stick, then immediately transport the victim to hospital⁸.

It was reported that most victims were adult males working outdoors, such as farmers, plantation workers, and herdsmen, and the majority of them had little knowledge of snakebites before they were bitten. Military personnel assigned to field forces routinely operate under field conditions, and are thereby also vulnerable to snakebites⁹. People at high risk of making contact with snakes are much less likely to fall victim to a snakebite if they develop a knowledge of snakes, their habits, and the timely and appropriate first-aid which can be applied to reduce the consequences of snakebites.¹⁰

2. Materials and Methods

Descriptive design was adopted by the investigator To assess the knowledge and practice on first aid measure for snake bite among farmers. The study was conducted in vadagal village with a sample size of 60 patients. Non-probability sampling technique was used to select the samples who met the Inclusion criteria. The purpose of the study was explained to the samples and their consents were obtained from the samples. Data was collected using multiple choice questions. The project has been approved by the ethics committee of the institution. Informed consent was obtained from the participants before initiating the study.

3. Results

Out of 60 samples, 13 (21.67%) belongs to 30-40 years; 25(41.67%) belongs to 22 (36.67%) years; 47(78.33%) are males; 13(21.16%) are females; 30 (50%) have primary education; 0(0%) are secondary education; 30 (50%) have illiterate; 16 (26.67%) have 5-10 years' experience; 29(48.33%) have 11-15 years; 15(25%) have 16-20 years' experience; with respect to income 23(38.33) earns 5000; 28(46.67%) earns 5000-10000; 09(15%) earns 10000-15000.

Table 1: Frequency and percentage distribution of the demographical variables among farmers

Demographic Variables	Frequency (F)	Percentage%
1. AGE IN YEARS		
a. 30-40	13	21.67
b. 41-50	25	41.67
c. 51-60	22	36.67
2. SEX		
a. Male	47	78.33
b. Female	13	21.16
3. EDUCATIONAL QUALIFICATION		
a. Primary education	30	50
b. Secondary education	0	0

c. Illiterate	30	50
4. FARMING EXPERIENCE		
a. 5-10 years	16	26.67
b. 11-15 years	29	48.33
c. 16-20 years	15	25
5. FAMILY INCOME		
a. 5000	23	38.33
b. 5000-10000	28	46.67
c. 10000-15000	9	15

The study reveals that out of 60 samples, 2(3.33%) have adequate knowledge; 31(51.67%) have moderate knowledge; 27(45%) have inadequate knowledge.

Table 2: Distribution and percentage of level of knowledge and practices on first aid measures for snake bite among farmers.

S.no	Level of knowledge	Number	Percentage
01.	Adequate	2	3.33%
02.	Moderate	31	51.67%
03.	Inadequate	27	45%

The study shows the association between the entire demographic variable with the level of knowledge and practices on first aid measures for snake bite among farmers except sex which is non-significant.

Table 3: The Association between the Selected Demographic Variables with Knowledge and Practice on First Aid Measures for Snake Bite among Farmers

Demographic variables	Number of samples	level of knowledge			Chi-Square Test
		Adequate	Moderate	Inadequate	
1. AGE:					
a. 30-40 years	13	1	6	6	$X^2=81.945$
b. 41-50 years	25	1	14	10	F=4
c. 51-60 years	22	0	11	11	S
2. EDUCATION:					
a. Primary	30	2	10	18	$X^2=336$
b. Secondary	0	0	0	0	F=4
c. Illiterate	30	0	21	9	S
3. FARMING EXPERIENCE:					
a. 5-10 Years	16	1	6	10	$X^2=224.43$
b. 11-15 Years	29	1	18	9	F=4
c. 16-20 Years	15	0	7	8	S
4. FAMILY INCOME					
a. 5000	23	1	8	14	$X^2=131.1$
b. 5000-10000	28	1	20	7	F=4
c. 10000-15000	9	0	3	6	S

4. Discussion

Study results reveals that out of 60 samples, 2(3.33%) have adequate knowledge; 31(51.67%) have moderate knowledge; 27(45%) have inadequate knowledge. The study shows the association between the entire demographic variable with the level of knowledge and practices on first aid measures for snake bite among farmers except sex which is non-significant.

The study is supported by **Karthick and Varalakshimi, E (2017)** who conducted a study to assess the knowledge on prevention and first aid measures of snake bite among farmer's, the study reveals that out of 30 samples 14(46.66%) were adequate, 16(53.34%) were moderate and 0(0%) were inadequate. The study is supported by **Chincholikar SV, Bandana P, Swati R(2014)** who

conducted a study to assess the Awareness of Snake bite and its first aid management in rural areas of Maharashtra, the study reveals that out of 49 survived cases of total 68 cases, 8 cases were given wrong first aid.

5. Conclusion

The study findings suggest that timely access of treatment in a crucial period and its management plays a vital role to save life. Appropriate education based on first aid management of snake bite, avoidance of dangerous first-aid measures, and the importance of quick transport of patients to the nearby well equipped centres is needed. Mass media education also be implemented.

6. Conflict of Interest

The Authors declare no conflict of interest.

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