A Study To Evaluate The Effectiveness Of Educational Interventions On Knowledge, Attitude And Expressed Practice Regarding Snake Bite Management Among People Residing In Selected Areas Of Daman.

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ABSTRACT

Snakebite is a significant public health concern in rural and coastal regions like Daman, where frequent human-snake interactions result in morbidity and mortality. Public health education on snakebite prevention, first aid, and timely hospital referral is essential in addressing this neglected tropical issue. Improving community knowledge and expressed practices through educational interventions can significantly reduce snakebite-related harm. Aim of the study is to improve knowledge, improve positive attitude and enhancing expressed practice by providing educational interventions on snakebite management. A Quasi-experimental research design with one group pre-test and post-test approach, purposive sampling was used to select the Moti daman and Dabhel areas of Daman, with 238 sample. The study Shows that educational intervention significantly improved participants' knowledge, attitude, and expressed practice regarding snake bite management among 238 participants. The intervention significantly improved knowledge (mean difference = 5.57, z = 13.127, p < 0.001), attitude (mean difference = 4.43, z = 8.136, p < 0.001), and expressed practice (mean difference =1.85.z =12.398). The findings suggest that educational interventions are effective in enhancing knowledge, attitude, and expressed practice regarding snake bite management. The study concludes that educational interventions are effective in improving knowledge, shaping positive attitudes, and improving practices regarding snakebite management.

KEYWORDS: Effectiveness, Knowledge, attitude, expressed practice, Educational Intervention, snakebite management.

INTRODUCTION

The World Health Organization (WHO) estimates that about 5 million snakebites occur yearly, resulting in up to 2.7 million envenoming's. Published reports suggest that between 81,000 and 138,000 deaths occur each year. Snakebite envenoming causes as many as 400,000 amputations and other permanent disabilities. Many snakebites go unreported, often because victims seek treatment from non-medical sources or do not have access to health care. As a result, it is believed that many cases of snakebite unreported. WHO added snakebite envenoming to its priority list of neglected tropical diseases (NTDs) in June 2017. A nationally representative study (Million Death) study noted- 45,900 annual snakebite death nationally. In India, around 90% of snakebites are caused by the 'big four' among the crawlers - common krait, Indian cobra, Russell's viper and saw scaled viper. Effective interventions involving education and antivenom provision would reduce snakebite deaths in India Snake anti-venoms are effective treatments to prevent or reverse most of the harmful effects of snakebite envenoming. They are included in the WHO Essential Medicines List and should be part of any primary health-care package where snake bites occur.

For those at risk, educational interventions are essential for closing the knowledge gap and encouraging constructive behaviors and attitudes. Communities can greatly reduce the effect of snake bites by learning how to identify poisonous snakes, how to administer first aid, and how important it is to seek medical attention as soon as possible.

Assessing the impact of organized educational interventions on people's knowledge, attitudes, and behaviors regarding snake bite management is the goal of this study. The results of this study should assist develop community- based awareness campaigns and shed light on how health education might lower the morbidity and death associated with snake bites.

STATEMENT OF THE PROBLEM

A study to evaluate the effectiveness of educational interventions on knowledge, attitude and expressed practice regarding snake bite management among people residing in selected areas of daman.

OBJECTIVES OF THE STUDY

The objectives of the study are

1. To assess the pretest and post- test level of knowledge regarding snake bite management among people residing in selected area of daman.

2. To assess the pretest and post- test level of attitude regarding snake bite management among people residing in selected area of daman.

3. To assess the pretest and post test level of expressed practice regarding snake bite management among people residing in selected area of daman.

4. To correlate the knowledge and attitude regarding snake bite management among people residing in selected area of daman

5. To correlate the knowledge and expressed practice regarding snake bite management among people residing in selected area of daman.

6. To find out association between knowledge score regarding snake bite management among people with their selected demographic variable.

7. To find out association between attitude score regarding snake bite management among people with their selected demographic variable.

8. To find out association between expressed practice score regarding snake bite management among people with their selected demographic variable.

OPERATIONAL DEFINITIONS

STUDY: According to book study refers to a systematic investigation or research project designed to answer specific questions or address particular problems within the field of nursing.

In this Study, study refers to examining the effect of improving knowledge, attitude and expressed practice regarding snake bite management of people residing in selected areas of daman.

EVALUATE: Evaluation is defined as a systemic assessment of the worth or merit of an object, such as specify type of disaster exercise. It involves the use of concepts, standards, principles, practical guidelines, and approaches to analyses and determine the value of an object.

In this study, Evaluate refers to the systematic assessment of the effectiveness of the educational interventions in improving knowledge, attitude, and expressed practice regarding snake bite management.

EFFECTIVENESS: According to book effectiveness is the extent to which the objectives of a research project have been realized.

In this study, effectiveness is measured in terms of Knowledge gained by people, Attitude of people, expressed practice of people on snakebite management.

EDUCATIONAL INTERVENTIONS: According to book an educational intervention is an action taken by school personnel to support a struggling student. Educational interventions may be instructional or behavioral.

In this study, educational interventions are strategies or programs designed to educate individuals regarding snake bite management.

KNOWLEDGE: According to book "Knowledge is a familiarity, awareness, or understanding of someone or something, such as facts, information, descriptions, or skills, which is acquired through experience or education.

In this study, knowledge refers to the understanding about the, types of snakes found in daman, risk factors, sign and symptoms, prevention, complications, Do's and don'ts after snake bite, snake bite management, how to apply splint on snakebite site.

ATTITUDE: According to book an attitude is a general, relatively enduring evaluation of an object. Attitudes are evaluative in the sense that they reflect the degree of positivity or negativity that a person feels toward an object.

In this study, attitude refers to the actions, behaviors, and emotional responses of individuals toward snakebite management. It reflects how people react to snakebite situations, either positively or negatively, by using Likert attitude scale.

EXPRESSED PRACTICE: According to book expressed Practice refers to the observable behaviors, actions, and verbal responses of individuals in the selected area of Daman who confronted with a situation related to snake bite management.

In this study expressed practice is refers to their actions, behaviors, and plan for snakebite management. expressed practice measured by checklist regarding snakebite management.

SNAKE BITE MANAGEMENT: According to book the process preventing, identifying, treating and preventing snake bites, including first aid, medical treatment, and follow-up care.

In this study the snake bite management refers to taking the right steps quickly after a snakebite like giving correct first aid, taking the person to the hospital without delay, and getting proper treatment to save their life and prevent serious harm.

RESEARCH METHODOLOGY

Research approach: Quantitative Research approach

Research Design: Quasi-experimental research design (One group pre-test-post-test design) **Variables**

- **Independent variable:** educational interventions
- **Dependent variable:** Knowledge, attitude and expressed practice regarding snake bite management
- **Sociodemographic variable:** age, gender, Education, Occupation, Types of residence, Religion, Monthly income, Previous source of knowledge, Past history of snakebite.

Research setting: Selected area of daman (Dhabhal, Moti daman, Bhimpore, Devka)

Population: General public residing in selected area (age 16 yeras and above)

Sample: people residing in Selected area of daman (Dhabhal, Moti daman, Bhimpore, Devka)

Sample size & sampling technique: 238 samples and technique are Simple random sampling

Inclusion criteria

1. People who are residing in Dabhel and Moti Daman areas of Daman.
2. People who are able to understand Hindi / Gujarati/ English language.
3. People who are willing to participate in study.

Exclusion criteria

1. People who are mentally ill.
2. People with chronic illness.
3. People who are not present during study.

Description of the tool:

Section A: Demographic data

Consisted of demographic variables which included age, gender, religion, residence of living, education, monthly income, previous source knowledge, past history of snakebite.

Section B: Tool to evaluate the level of knowledge regarding snakebite management.

This section consisted of 20 questions on knowledge questionnaires to assess the knowledge regarding snakebite management among the people residing in selected area of daman.

Section C: Tool to evaluate the level of Attitude regarding snakebite management

This section consisted of 10 questions on Attitude questionnaires to assess the knowledge regarding snakebite management among the people residing in selected area of daman.

Section-D Tool to evaluate the level of Expressed practice regarding snakebite management

This section consisted of 10 questions, rating scale questionnaires for assessing expressed practice questionnaires to assess the expressed practice regarding snakebite management among the people residing in selected area of daman.

Scoring Key for knowledge:

Each item was ended with a single correct answer. Every correct answer was given a score of "1" mark and wrong answer was given "0" mark. The total score of the item was 20.

Scoring Key for knowledge

Sr.no.	Level of knowledge	Scoring	Percentage
1	Adequate knowledge	16-20	Above 75%
2	Moderately knowledge	10-15	50%-75%
3	Inadequate knowledge	0-9	Below 50%

Scoring key for attitude

Sr.no	Level of Attitude	Scoring	Percentage
1	Favorable attitude	41-50	Below 75%
2	Neutral attitude	30-40	50-75%
3	Unfavorable attitude	10-29	Below 50%

Marks were given according to below tables

Each of the 10 attitude statements is answered on a 5-point Likert scale.

Minimum total score: 10

Maximum total score: 50

Scoring Key for Expressed Practice

Sr.no	Level of Expressed practice	Scoring	Percentage
1	Good expressed practice	8-10	Above 75%
2	Average expressed practice	5-7	50-75%
3	Poor expressed practice	0-4	Below 50%

Each item ended with a single correct answer. Every correct answer was given a score of "1" mark and wrong answer was given "0" mark. The total score of the item was 10.

SECTION-A: ANALYSIS AND INTERPRITATION OF THE DEMOGRAPHIC VARIABLES OF THE SAMPLES

Table 1. Frequency and percentage wise distribution of samples based on demographic variables

[n=238]

Sr. No	Demographic variables	Frequency (f)	Percentage (%)
1.	Age in year		
16 – 25		13	5.5
26 – 35		87	36.6
36 – 45		116	48.7
46 – 55		18	7.6
56 & above		4	1.7
2.	Gender		
Male		85	35.7
Female		150	63.0
Transgender		3	1.3
3.	Education		
No formal Education		45	18.9
Primary		5	2.1
Middle primary		180	75.6
Secondary Education		4	1.7
Higher secondary Education		3	1.3
Graduate		1	0.4
Post graduate		0	0
4.	Occupation		
Homemaker		79	33.2
Government Job		1	.4
Private Job		44	18.5
Farmers		3	1.3
Daily earner		108	45.4
Tailor		2	.8
Carpenter		1	.4
5.	Types of residence		
Rural		53	22.3
Urban		33	13.9
Semirural		135	56.7
Semiurban		17	7.1
6.	Religion		
Hindu		149	62.6

Muslim	43	18.1
Christian	22	9.2
Others	24	10.1
7. Monthly income		
5000-10,0000 /-	36	15.1
10,0001-20,000/-	190	79.8
20,0001- 30,000/-	11	4.6
30,0001- 40,000/-	0	0
40,0001-50,000/-	1	.4
50,000 and above	0	0
8. Previous source of knowledge		
Mass media	173	72.7
Neighbors	26	10.9
Health professionals	39	16.4
9. Past history of snakebite		
Yes	5	2.1
No	233	97.9

This data shows the distribution of participate with their demographic variables. the findings were as follow

With regards to the age wise distribution of the participants, majority of the participants belongs from age group of 36-45years 116(48.7%), age group of 26-35year 87(36.6%), age group of 46-55 year 18(7.6%), age group of 16-25year 13(5.5%), and minority participants were belonged from the age group of 56 years and above 4(1.7%).

Regarding gender, the majority of 150(63%) participants were female, followed by 85(35.7%) were males and 3(1.3%) participants were transgender.

With regards to the educational background of the participants, the majority 180(75.6%) had middle primary education, followed by 45(18.9%) with no formal education, 5(2.1%) with primary education, 4(1.7%) with secondary education, 3(1.3%) with higher secondary education, and minority participants 1(0.4%) were graduates, while none of the participants had postgraduate education.

Regarding occupation, the majority of 108(45.4%) participants were daily earners, 79 (33.2%) participants were homemakers, 44 (18.5%) participants were private job, and minority participants were 3(1.3%) farmers, 1(0.4%) government job, 2(08%) tailors, and 1(0.4%) carpenter.

Regarding to the types of residence, the majority of 135 (56.7%) participants belonged to semirural areas, followed by 53 (22.3%) from rural areas, 33 (13.9%) from urban areas, and 17(7.1%) from semiurban areas.

Regarding religion, the majority of 149(62.6%) participants were Hindu, followed by 43(18.1%) Muslims, 22 (9.2%) Christians, and 24(10.1%) belonged to other religions.

Regarding to monthly income, the majority of 190(79.8%) participants had an income between 10,000-20,000, followed by 36(15.1%) with an income between 5,000-10,000, 11(4.6%) with an income between 20,000-30,000, and 1(0.4%) participant had an income between 40,000-50,000.

Regarding to the previous source of knowledge, the majority of 173(72.7%) participants got their knowledge from mass media, followed by 39(16.4%) from health professionals, and 26(10.9%) from neighbors.

With regards to the past history of snakebite, the majority of 233(97.9%) participants did not have a history of snakebite, while 5(2.1%) participants had a previous history of snakebite.

It concludes that study findings indicate that the majority of participants belonged to the age group of 36–45 years (116 participants, 48.7%). In terms of gender, most participants were female (150 participants, 63%). Regarding educational background, the highest number had middle primary education (180 participants, 75.6%). Occupationally, the majority were daily earners (108 participants, 45.4%). Most participants resided in semi-rural areas (135 participants, 56.7%). Concerning religion, the majority were Hindus (149 participants, 62.6%). With respect to monthly income, most participants earned between ₹10,000–₹20,000 (190 participants, 79.8%). The main source of previous knowledge was mass media (173 participants, 72.7%). Lastly, the majority of participants had no past history of snakebite (233 participants, 97.9%).
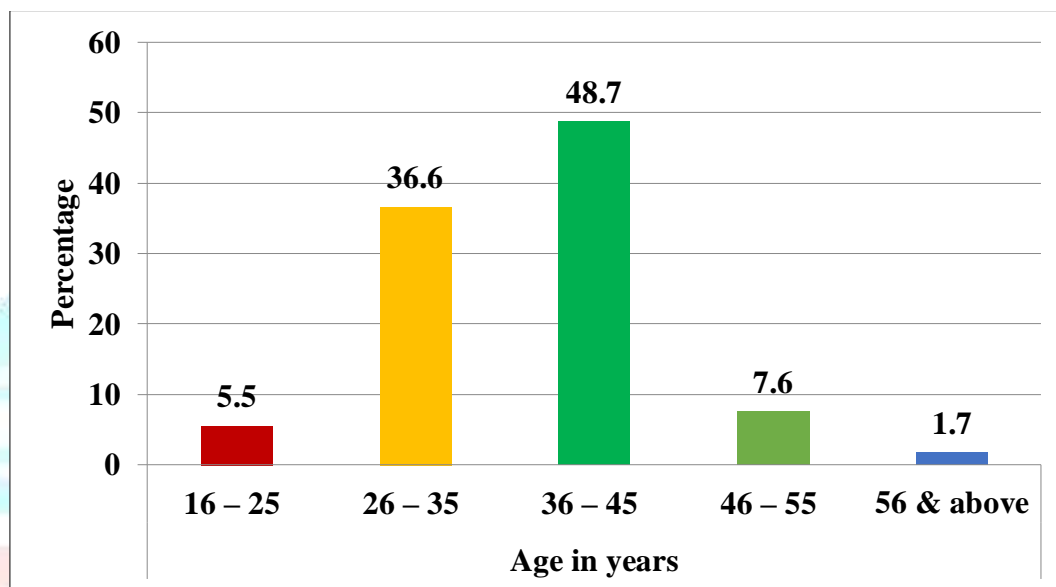

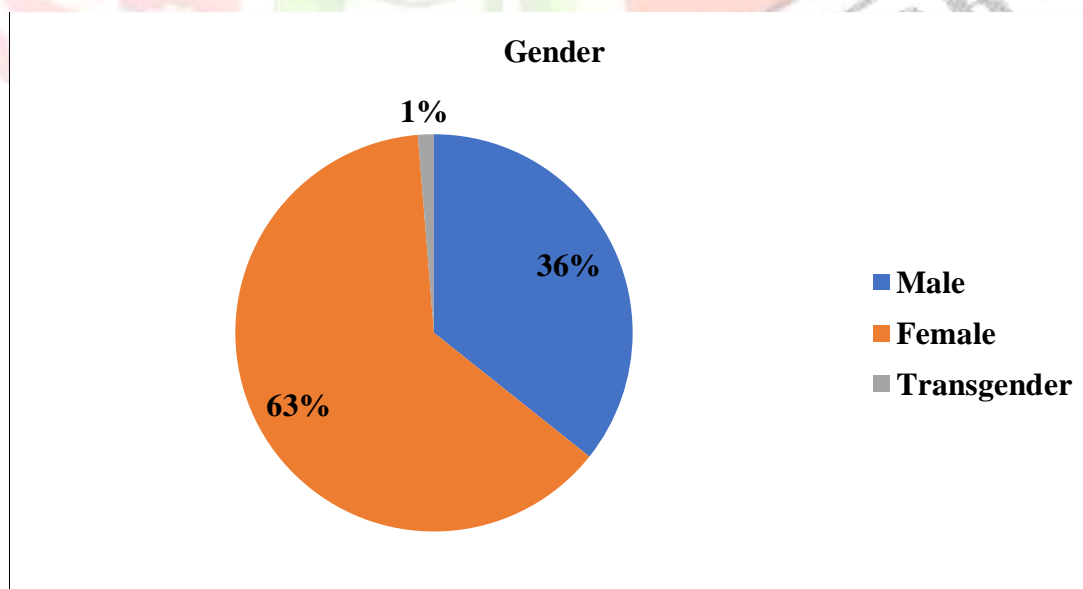**Figure 1: Bar chart shows the percentage wise distribution of samples according to their age**

Figure 2 Pie chart shows the percentage wise distribution of samples according to their gender

Figure 3: Bar Chart showing the Percentage wise distribution of Samples according to their education

Figure 4: Pie Chart showing the percentage wise distribution of samples according to their Occupation

Figure 5: Cone Chart showing the percentage wise distribution of samples according to type of residence

Figure 6: Doughnut Chart showing the percentage wise distribution of samples according to religion

Monthly income

Figure 7: Pie chart shows the Percentage wise distribution of samples according to their monthly income

Figure 8: Bar chart shows the percentage wise distribution of samples according to previous knowledge

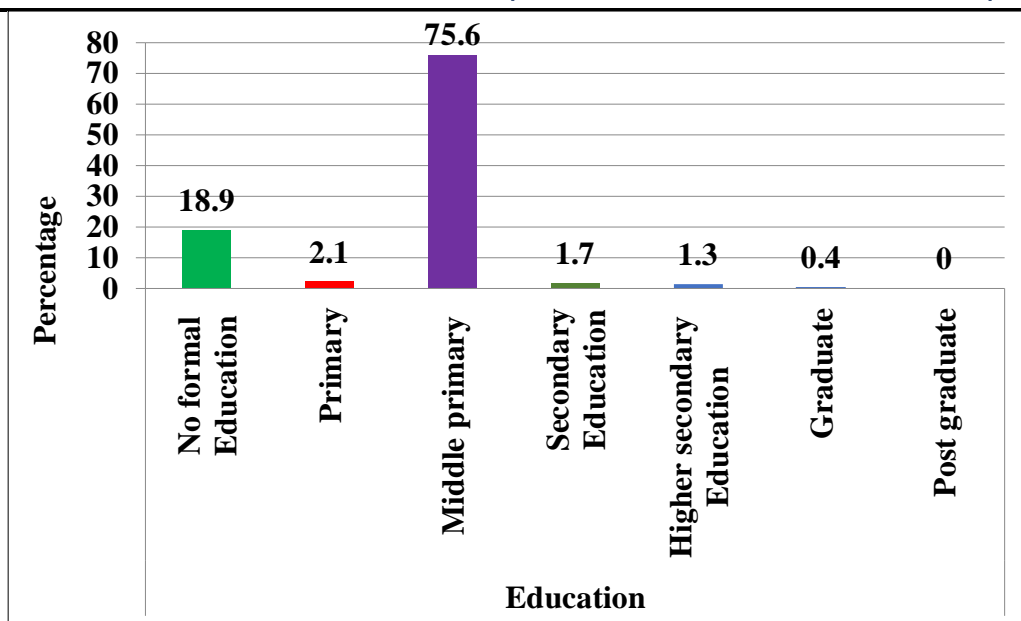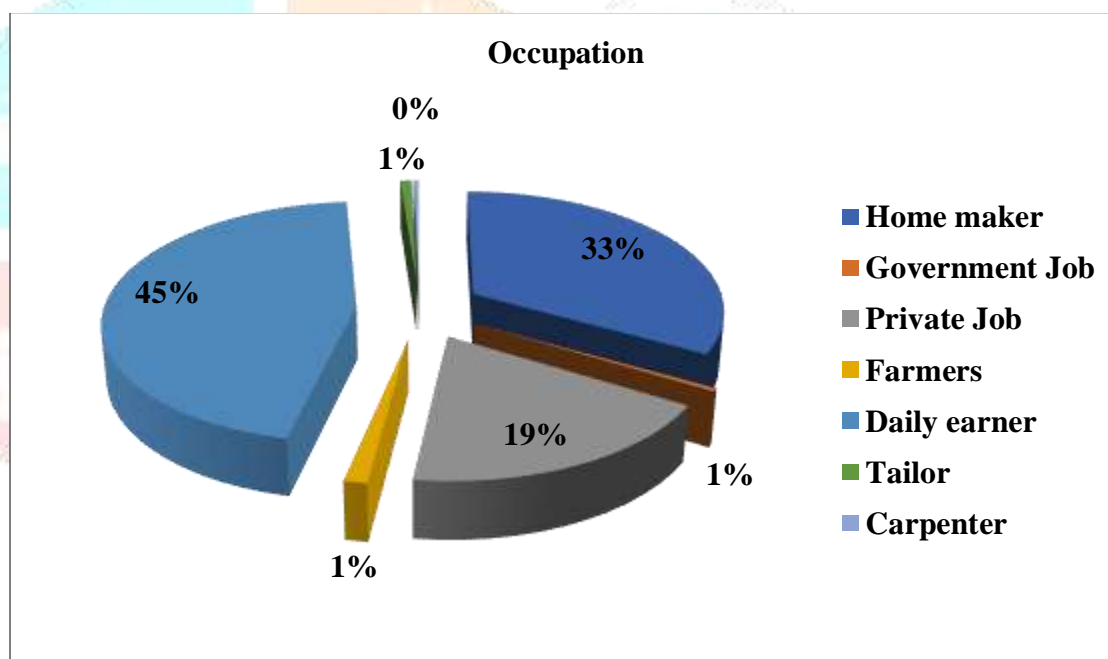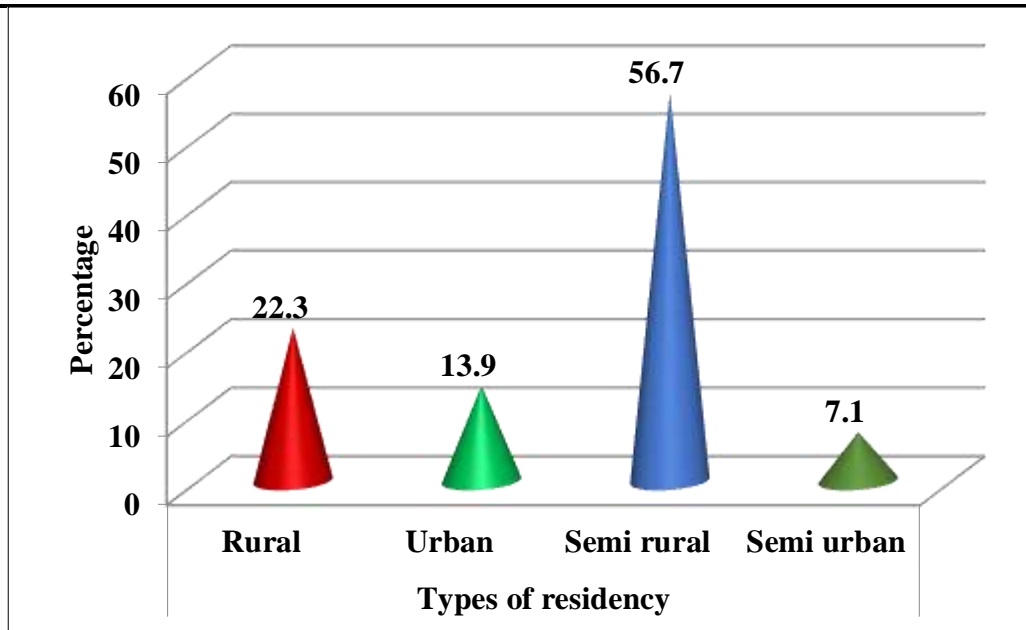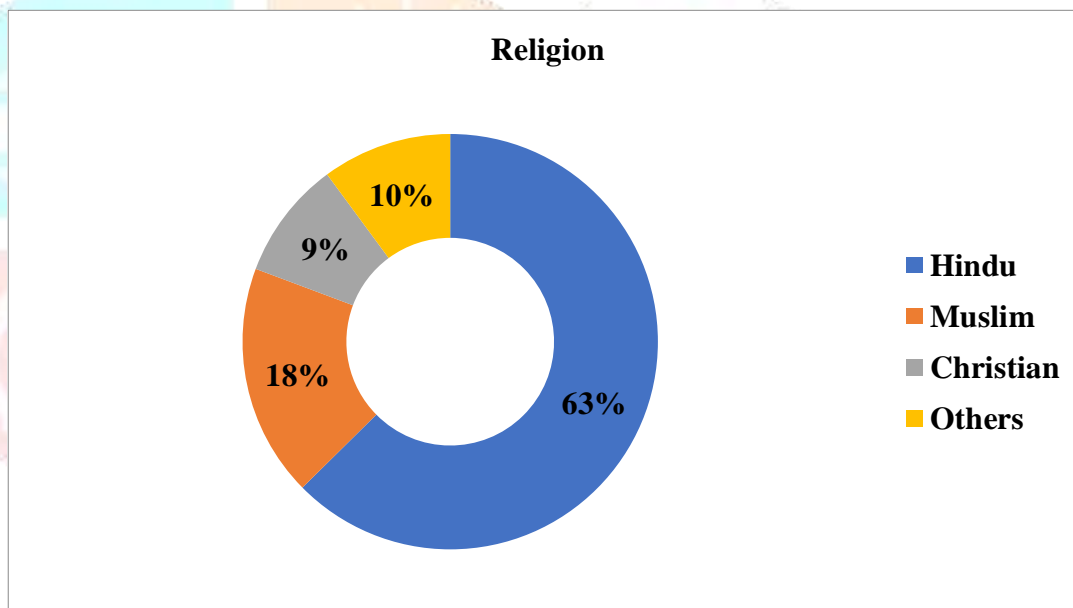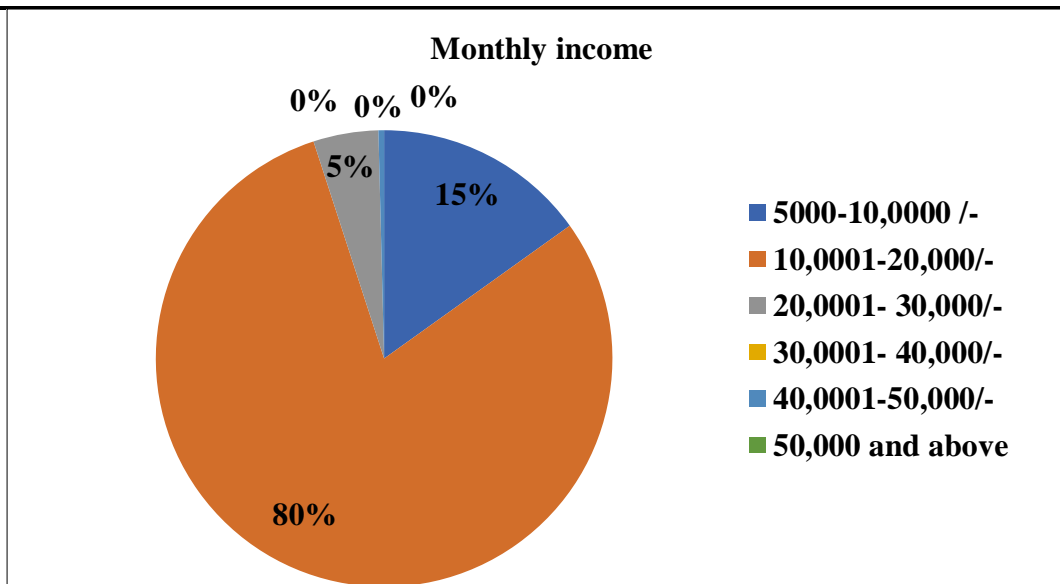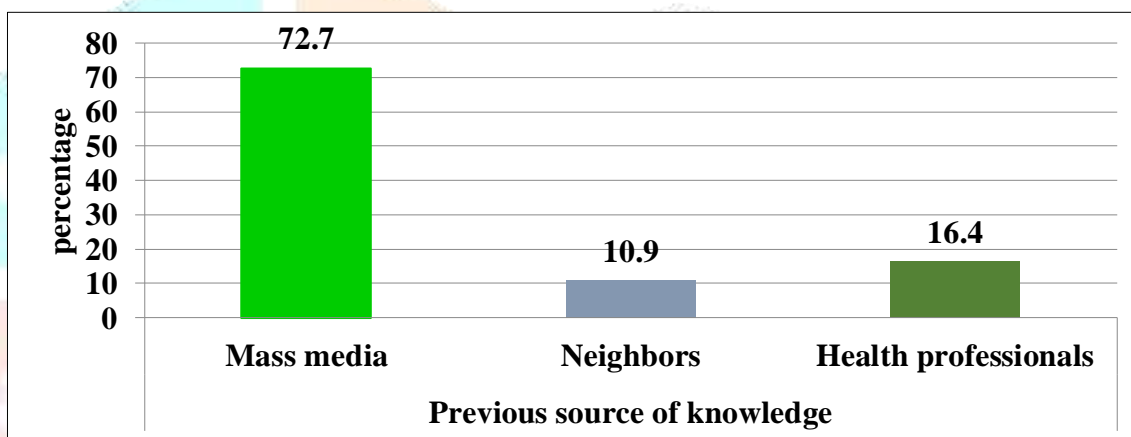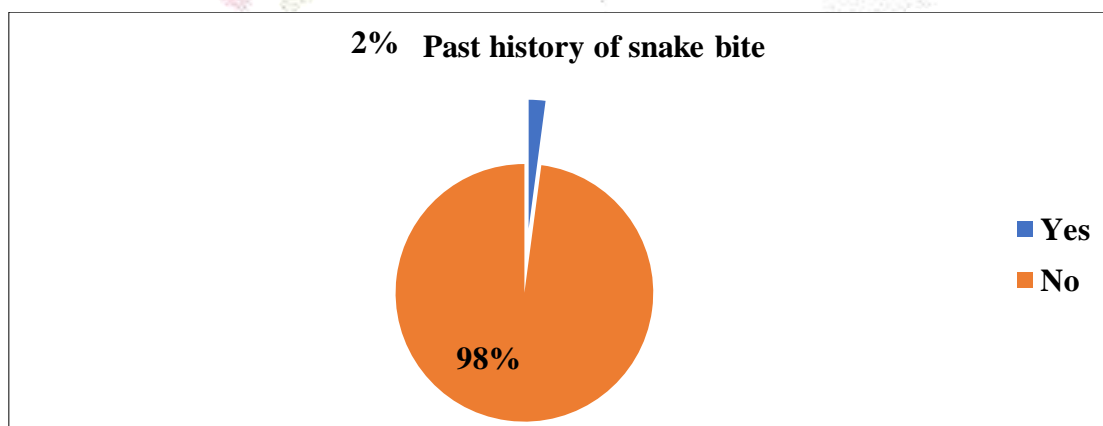**Figure 9: Pie chart shows the Percentage wise distribution of samples according to Past history of snake bite**

SECTION-B: ANALYSIS AND INTERPRETATION OF PRE-TEST AND POST TEST KNOWLEDGE REGARDING SNAKE BITE MANAGEMENT AMONG PEOPLE RESIDING IN SELECTED AREA OF DAMAN.

Table 2: Frequency and percentage distribution of level of knowledge regarding snake bite management before and after educational intervention.

[n=238]

Level of knowledge	Pre-test		Post-test	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Inadequate knowledge	111	46.6	00	00
Moderately adequate knowledge	125	52.5	156	65.5
Adequate knowledge	2	.8	82	34.5

This data Showed that in the pretest knowledge majority of the participants, 125 (52.5%), had moderately adequate knowledge regarding snake bite management, 111 (46.6%) had inadequate knowledge and 2 participants (0.8%) had adequate knowledge.

Showed that in the post-test knowledge, there was a significant improvement the number of participants with inadequate knowledge dropped to zero (00), while majority of the participants 156 (65.5%) reached to moderately adequate knowledge and 82 (34.5%) participants achieved adequate knowledge.

It was concluded that the in pre test knowledge findings revealed that the majority of participants 125 (52.5%)had a moderately adequate knowledge. However, in the post-test knowledge the majority, 156(65.5%) had moderately adequate knowledge. These results indicate that the educational intervention was effective in significantly improving participants' knowledge related to snakebite management, prevention, dos and don'ts, complications, and signs and symptoms.

Figure 10: Bar chart shows the percentage distribution of level of knowledge regarding snake bite management before and after educational intervention.

SECTION-C: ANALYSIS AND INTERPRETATION OF PRE-TEST AND POST-TEST ATTITUDE REGARDING SNAKE BITE MANAGEMENT AMONG PEOPLE RESIDING IN SELECTED AREAS OF DAMAN.

Table3: Assessment of pre-test and post-test attitude regarding snake bite management among people residing in the selected area of Daman.

				[n=238]
Level of attitude	**Pre-test**		**Post-test**	
	Frequency (f)	**Percentage (%)**	**Frequency (f)**	**Percentage (%)**
Favorable attitude	144	60.5	76	31.9
Neutral attitude	92	38.7	156	65.5
Unfavorable attitude	2	.8	6	2.5

This data Showed in the pre-test attitude, majority of the participants, 144 (60.5%), had a unfavourable attitude, while 92 (38.7%) had a neutral attitude, and 2 (0.8%) demonstrated a favourable attitude.

In the post-test attitude, majority of the participants, 156 (65.5%), had a neutral attitude, followed by 76 (31.9%) with unfavourable attitude, and 6(2.5%) with favourable attitude.

It was concluded that in the pre-test attitude, the majority of participants, 144(60.5%) had unfavorable attitude. However In the post-test attitude results showed improvement, with the majority of participants, 156(65.5%), expressing a neutral attitude. These results suggest a shift towards a more neutral and slightly positive attitude among participants after the educational intervention.
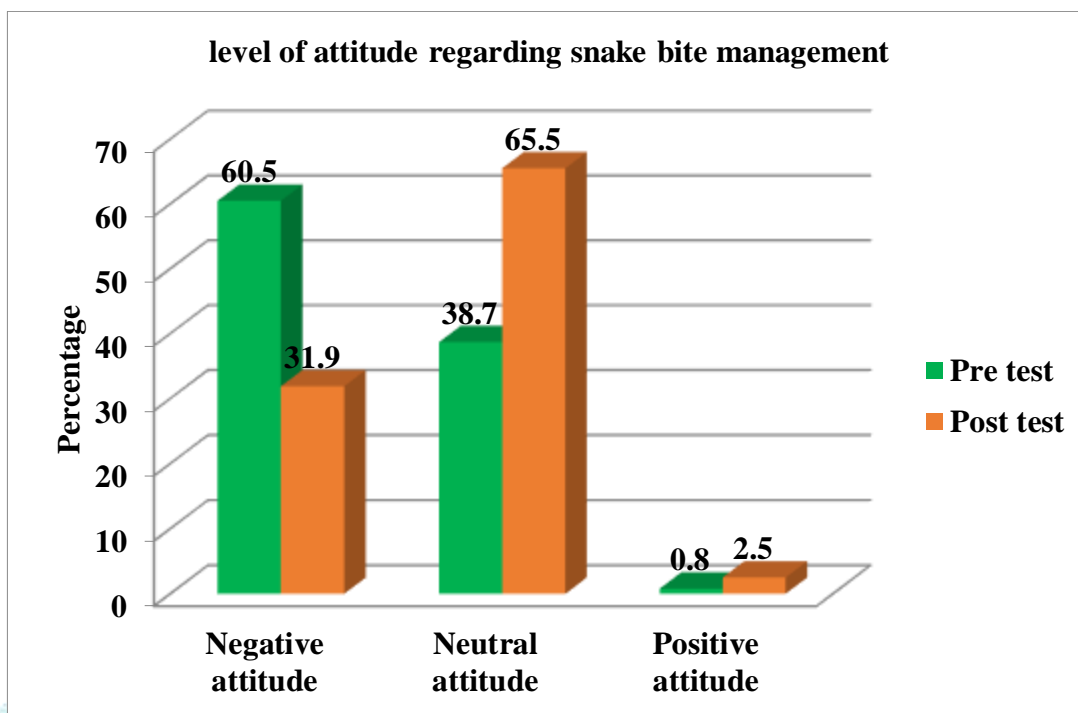
Figure 11: Percentage distribution of level of attitude regarding snake bite management before and after educational intervention.

SECTION-D: ANALYSIS AND INTERPRETATION OF PRE-TEST AND POST-TEST EXPRESSED PRACTICE REGARDING SNAKE BITE MANAGEMENT AMONG PEOPLE RESIDING IN SELECTED AREAS OF DAMAN.

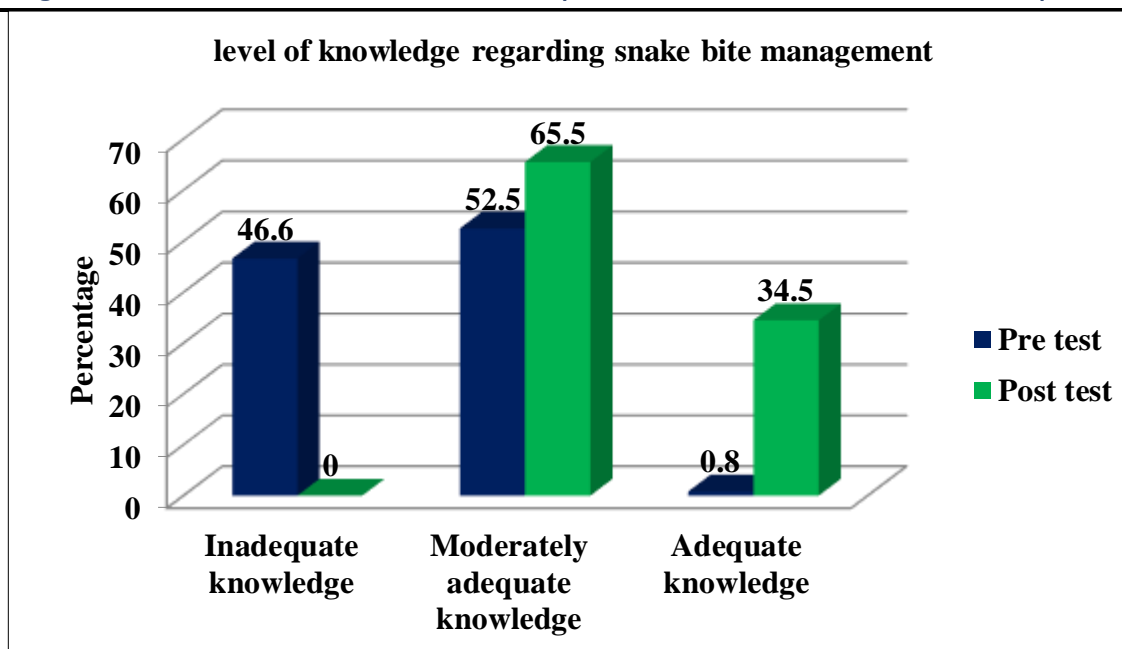Table 4: Frequency and percentage distribution of level of practice regarding snake bite management before and after educational intervention.   **[n=238]**

Level of expressed practice	Pre-test		Post-test	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Poor expressed practice	109	45.8	00	00
Average expressed practice	115	48.3	187	78.6
Good expressed practice	14	5.9	51	21.4

This data shows the participants' level of expressed practice. In the pre-test expressed practice, the majority of the participants, 115 (48.3%), had average expressed practice, while 109 (45.8%) exhibited poor expressed practice, and only 14 (5.9%) demonstrated good expressed practice toward snake bite management.

In the post test expressed practice, there was an improvement. majority of the participants, 187 (78.6%), had average expressed practice, followed by 51 (21.4%) who developed good expressed practice.

It was concluded that in the pre-test expressed practice, the majority of participants 115 (48.3%), shown average expressed practice regarding snakebite management, in the post-test expressed practice results

showed with the majority, 187(78.6%), showed average expressed practice. These results suggest that the intervention led to a positive shift in the participants expressed practice levels toward snakebite management.

Percentage distribution of the level of expressed practice regarding snake bite management before and after educational intervention.
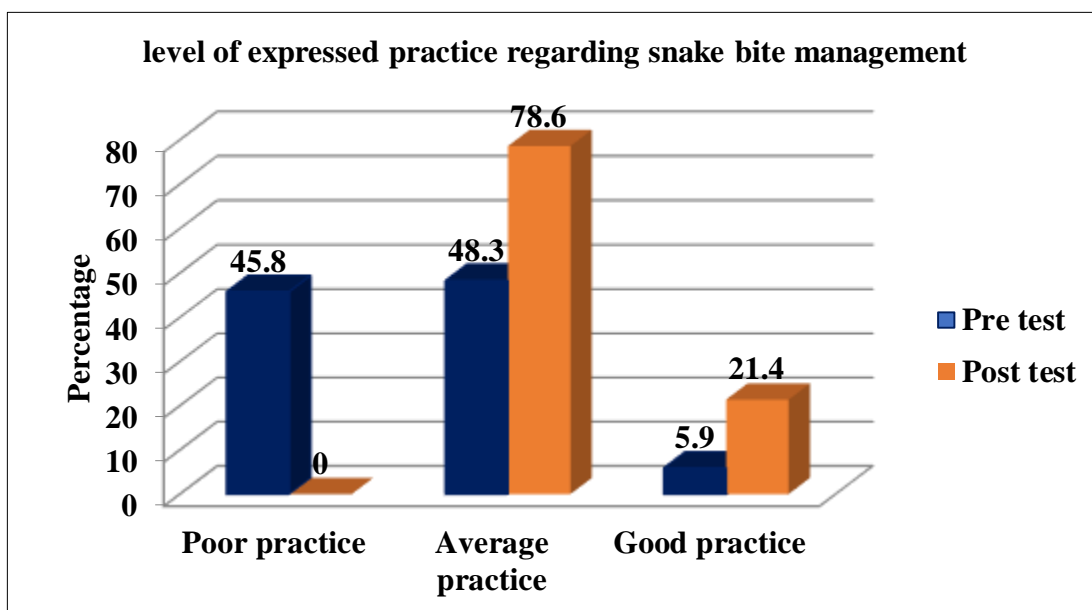
➤ **SECTION-E: DATA ANALYSIS AND INTERPRETATION OF THE EFFECTIVENESS OF EDUCATIONAL INTERVENTION ON KNOWLEDGE REGARDING SNAKE BITE MANAGEMENT**

This data Effectiveness of educational intervention regarding the knowledge of Snake bite management among people residing in selected area of Daman

[n=238]

Knowledge score	Mean	Mean difference	SD	z value	Table value	Inference
Pre test	9.36	5.57	2.66	13.127	1.96	S*
Post test	14.93		1.69			

S* Significant at the level of <0.05

This data shows the mean pre-test knowledge score was 9.36 (SD = 2.66), while the mean post-test score increased to 14.93 (SD = 1.69). The mean difference between pre-test and post-test knowledge scores was 5.57, indicating a substantial improvement in knowledge after the intervention. the calculated z value (13.127) far exceeded the table value (1.96) value. This demonstrates that the post-test knowledge scores were significantly higher than the pre-test scores.

It concluded that the mean pre-test knowledge score was 9.36 (SD = 2.66), which increased significantly to 14.93 (SD = 1.69) in the post-test. The mean difference of 5.57 indicates substantial improvement in knowledge after the educational intervention. The calculated z-value of 13.127 higher than the critical table value of 1.96, state that the increase in post-test knowledge scores was statistically significant.

➢ **ANALYSIS AND INTERPRETATION OF EFFECTIVENESS OF EDUCATIONAL INTERVENTION ON EFFECTIVENESS OF EDUCATIONAL INTERVENTION ON ATTITUDE REGARDING SNAKE BITE MANAGEMENT**

Table 5: Effectiveness of educational intervention regarding the attitude of Snake bite management among people residing in selected area of Daman

[n=238]

Attitude score	Mean	Mean difference	SD	z value	Table value	Inference
Pre test	26.79	4.43	6.27	8.136	1.96	S*
Post test	31.22		4.48			

S* Significant at the level of <0.05

This data Show the mean pre-test attitude score was 26.79 (SD = 6.27), while the mean post-test attitude score increased to 31.22 (SD = 4.48). The mean difference between pre-test and post-test scores was 4.43, indicating an improvement in attitude after educational intervention. The calculated z value (8.136) and table value (1.96) indicate a significant difference.

It was concluded that the mean pre-test attitude score was 26.79 (SD = 6.27), which increased to 31.22 (SD = 4.48) in the post-test. The mean difference of 4.43 reflects an improvement in participants' attitudes following the educational intervention. The calculated z-value of 8.136, higher than the critical table value of 1.96, indicates that this improvement was statistically significant.

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➢ **ANALYSIS AND INTERPRETATION OF EFFECTIVENESS OF EDUCATIONAL INTERVENTION ON EXPRSSED PRACTICE REGARDING SNAKE BITE MANAGEMENT**

Table 6: Effectiveness of educational intervention regarding the expressed practice of Snake bite management among people residing in selected area of Daman

[n=238]

Expressed Practice score	Mean	Mean difference	SD	z value	Table value	Inference
Pre test	4.84	1.85	1.34	12.398	1.96	**S***
Post test	6.69		1.23			

S*significance at the level of < 0.05

This data Shows the mean pre-test expressed practice score was 4.84 (SD = 1.34), while the mean post-test practice score increased to 6.69 (SD = 1.23). The mean difference between pre-test and post-test expressed practice scores was 1.85,

It concluded that the positive improvement in expressed practice after the intervention. The calculated z value (12.39) is higher than the table value (1.96). This suggest that the post-test practice scores were significantly higher than the pre-test scores.

SECTION-E: ANALYSIS AND INTERPRETATION CORRELATION BETWEEN KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING SNAKE BITE MANAGEMENT

Table 7: Correlation between knowledge, attitude and regarding snake bite management **[n=238]**

The correlation between post-test knowledge and attitude regarding snakebite management showed a very weak negative

Correlation	F	Df	r value	p value	Inference
Correlation between post test knowledge and attitude regarding snake bite management	238	236	-0.020	0.754	Negative correlation.

relationship (r = -0.020), and the p-value of 0.754 indicates that this result is not statistically significant. This means that changes in knowledge levels after the test were not related to changes in participants' attitudes toward snakebite management.

It was concluded that there is no significant correlation between post-test level of knowledge and post test attitude regarding snake bite management, as indicated by the p -value of 0.754, which is higher than the significance level of 0.05. The r-value.

> **CORRELATION BETWEEN KNOWLEDGE AND EXPRESSED PRACTICE REGARDING SNAKE BITE MANAGEMENT**

[n=238]

Correlation	F	Df	r value	p value	Inference
Correlation between post test knowledge and expressed practice regarding snake bite management	238	236	-0.106	0.103	**Negative correlation**

Table 8: The correlation between post-test knowledge and expressed practice regarding snake bite management revealed negative correlation, with an r value of -0.106. This suggests that as knowledge increased, practice slightly decreased, however, the relationship is very weak.

It was concluded that there is no significant correlation between post-test knowledge and practice regarding snake bite management, as indicated by the p-value of 0.103, which is higher than the significance level of knowledge 0.05. The r value is 0.106 suggests negative correlation. Hence, the correlation is not significant.

SECTION-F: ASSOCIATION BETWEEN PRE TEST KNOWLEDGE SCORE, ATTITUDE SCORE AND PRACTICE SCORE WITH SELECTED DEMOGRAPHIC VARIABLE OF SAMPLES.

Table 9: association between pre test knowledge score, attitude score and practice score with selected demographic variable of samples.

S*: S*: significance at the level of 0.05

NS-Non significance　　　　　　　　　　　　　　　　　　　　**[n=238]**

Demographic variables	Inadequate	Moderate	Adequate	(f)	χ^2 Value	Df	P value	Inference
1.　　Agen in year								
16 – 25	8	5	0	13				
26 – 35	47	39	1	87				
36 – 45	48	67	1	116	8.763	8	0.363	NS
46 – 55	5	13	0	18				
56 & above	3	1	0	4				
2.　　Gender								
Male	38	47	0	85	1.890	4	0.756	NS
Female	71	77	2	150				
Transgender	2	1	0	3				
3.　　Education								
No formal Education	23	22	0	45				
Primary	1	4	0	5				
Middle primary	83	95	2	180				
Secondary Education	2	2	0	4	3.822	10	0.955	NS
Higher secondary Education	2	1	0	3				
Graduate	0	1	0	1				
4. Occupation								
Homemaker	34	45	0	79				
Government Job	0	1	0	1				
Private Job	18	26	0	44				
Farmers	2	1	0	3	9.021	12	0.701	NS
Daily earner	54	52	2	108				
Tailor	2	0	0	2				
Carpenter	1	0	0	1				
5. Types of residence								

Rural	23	30	0	53				
Urban	13	20	0	33	7.522	6	0.275	NS
Semirural	67	67	1	135				
Semiurban	8	8	1	17				
6. Religion								
Hindu	72	76	1	149				
Muslim	21	21	1	43	5.444	6	0.488	NS
Christian	6	16	0	22				
Others	12	12	0	24				
7. Monthly income								
5000-10,0000 /-	15	21	0	36				
10,0001-20,000/-	88	100	2	190	3.296	6	0.771	NS
20,0001-30,000/-	7	4	0	11				
40,0001-50,000/-	1	0	0	1				
8. Previous source of knowledge								
Mass media	85	86	2	173				
Neighbors	12	14	0	26	3.213	4	0.523	NS
Health professionals	14	25	0	39				
9. Past history of snakebite								
Yes	3	2	0	5	0.391	2	0.822	NS
No	108	123	2	233				

showed association of pretest knowledge with their selected demographic variables.

In the age in year, the obtained chi-square value is 8.763, which is higher than the p-value 0.363, indicating no significant association.

In the Gender, the obtained chi-square value is 1.890, which is higher than the p-value 0.756, indicating no significant association.

In the Education, the obtained chi-square value is 3.822, which is higher than the p-value 0.955, indicating no significant association

In Occupation, he obtained chi-square value is 9.021, which is higher than the p-value 0.701, indicating no significant association.

In Type of Residence, the obtained chi-square value is 7.522, which is higher than the p-value 0.275, indicating no significant association.

In Religion, the obtained chi-square value is 5.444, which is higher than the p-value 0.488, indicating no significant association.

In Monthly Income, the obtained chi-square value is 3.296, which is higher than the p-value 0.771, indicating

no significant association.

In Previous Source of Knowledge, the obtained chi-square value is 3.213, which is higher than the p-value 0.523, indicating no significant association.

In Past History of Snakebite, the obtained chi-square value is 0.391, which is higher than the p-value 0.822, indicating no significant association

It was concluded that the there was no significance association with demographic variable such as age, gender, education, occupation, type of residence, religion, monthly income, previous source of knowledge and past history of snakebite, as their p-values were greater than 0.05.

➢ **ASSOCIATION BETWEEN PRETEST ATTITUDE SCORE WITH SELECTED DEMOGRAPHIC VARIABLES**

[n=238]

Demographic variables	Inadeq uate	Mode rate	Adeq uate	(f)	χ^2 Val ue	Df	P value	Inference
1. Agen in year								
16 – 25	7	5	1	13	16.5 8	8	0.035	S
26 – 35	56	31	0	87				
36 – 45	70	46	0	116				
46 – 55	10	7	1	18				
56 & above	1	3	0	4				
2. Gender								
Male	47	37	1	85	3.30 0	4	0.509	NS
Female	94	55	1	150				
Transgender	3	0	0	3				
3. Education								
No formal Education	33	12	0	45	8.00 5	10	0.628	NS
Primary	3	2	0	5				
Middle primary	103	75	2	180				
Secondary Education	2	2	0	4				
Higher secondary Education	3	0	0	3				
Graduate	0	1	0	1				
4. Occupation								
Homemaker	52	26	1	79	7.22 5	12	0.842	NS
Government Job	0	1	0	1				
Private Job	27	16	1	44				
Farmers	1	2	0	3				
Daily earner	62	46	0	108				
Tailor	1	1	0	2				

Carpenter	1	0	0	1				
5. Types of residence								
Rural	34	18	1	53	7.871	12	0.253	NS
Urban	25	8	0	33				
Semirural	78	56	1	135				
Semiurban	7	10	0	17				
6. Religion								
Hindu	84	63	2	149	9.304	6	0.157	NS
Muslim	26	17	0	43				
Christian	13	9	0	22				
Others	21	3	0	24				
7. Monthly income								
5000-10,0000 /-	19	16	1	36	3.896	6	0.691	NS
10,0001-20,000/-	116	73	1	190				
20,0001- 30,000/-	8	3	0	11				
40,0001-50,000/-	1	0	0	1				
8. Previous source of knowledge								
Mass media	101	71	1	173	**11.543**	**4**	**0.021**	**S**
Neighbors	23	3	0	26				
Health professionals	20	18	1	39				
9. Past history of snakebite								
Yes	3	2	0	5	0.046	2	0.977	NS
No	141	90	2	233				

S* -significance at the level of 0.05

NS-Non significance

Table 10: showed association between pretest attitude score with selected demographic variables

In Age, the obtained chi-square value is **16.58**, which is higher than the p-value **0.035**, indicating a **significant association**.

In Gender, the obtained chi-square value is 3.300, which is higher than the p-value 0.509, indicating no significant association.

In Education, the obtained chi-square value is 8.005, which is higher than the p-value 0.628, indicating no significant association.

In Occupation, the obtained chi-square value is 7.225, which is higher than the p-value 0.842, indicating no significant association.

In Type of Residence, the obtained chi-square value is 7.871, which is higher than the p-value 0.253, indicating no significant association.

In Religion, the obtained chi-square value is 9.304, which is higher than the p-value 0.157, indicating no significant association.

In Monthly Income, the obtained chi-square value is 3.896, which is higher than the p-value 0.691, indicating no significant association.

In Previous Source of Knowledge, the obtained chi-square value is **11.543**, which is higher than the p-value **0.021**, indicating a **significant association**.

In Past History of Snakebite, the obtained chi-square value is 0.046, which is lower than the p-value 0.977, indicating no significant association.

It was concluded that the there was no significance association with demographic variable such as gender, education, occupation, type of residence, religion, monthly income, and past history of snakebite, as their p-values were greater than 0.05.

> ➢ **ASSOCIATION BETWEEN PRETEST EXPRESSED PRACTICE SCORE WITH SELECTED DEMOGRAPHIC VARIABLES**

[n=238]

Demographic variables	Inadequate	Moderate	Adequate	(f)	χ^2 Value	Df	P value	Inference
1. Agen in year								
16 – 25	6	6	1	13				
26 – 35	38	42	7	87				
36 – 45	52	59	5	116	3.669	8	0.886	NS
46 – 55	10	7	1	18				
56 & above	3	1	0	4				
2. Gender								
Male	38	42	5	85	3.589	4	0.964	NS
Female	70	71	9	150				
Transgender	1	2	0	3				
3. Education								
No formal Education	22	18	5	45				
Primary	4	0	1	5				
Middle primary	79	93	8	180				
Secondary Education	2	2	0	4	11.334	10	0.332	NS
Higher secondary Education	1	2	0	3				
Graduate	1	0	0	1				
4. Occupation								
Homemaker	34	39	6	79				
Government Job	1	0	0	1	7.460	12	0.826	NS
Private Job	16	24	4	44				

Farmers	1	2	0	3				
Daily earner	56	48	4	108				
Tailor	1	1	0	2				
Carpenter	0	1	0	1				
5. Types of residence								
Rural	27	23	3	53				
Urban	17	15	1	33	3,820	6	0.701	NS
Semirural	56	69	10	135				
Semiurban	9	8	0	17				
6. Religion								
Hindu	69	71	9	149				
Muslim	23	20	0	43	6.901	6	0.330	NS
Christian	7	13	2	22				
Others	10	11	3	24				
7. Monthly income								
5000-10,0000 /-	17	17	2	36				
10,0001-20,000/-	87	92	11	190				
20,0001- 30,000/-	4	6	1	11	1.713	6	0.944	NS
40,0001-50,000/-	1	0	0	1				
8. Previous source of knowledge								
Mass media	79	84	10	173				
Neighbors	10	13	3	26	2.764	4	0.598	NS
Health professionals	20	18	1	39				
9. Past history of snakebite								
Yes	3	2	0	5	0.599	2	0.741	NS
No	106	113	14	233				

S* -significance at the level of 0.05

NS-Non significance

Table 11: This data showed association between pretest expressed practice score with selected demographic variables

In Age, the obtained chi-square value is 3.669, which is higher than the p-value 0.886, indicating no significant association.

In Gender, the obtained chi-square value is 3.589, which is higher than the p-value 0.964, indicating no significant association.

In Education, the obtained chi-square value is 11.334, which is higher than the p-value 0.332, indicating no significant association.

In Occupation, the obtained chi-square value is 7.460, which is higher than the p-value 0.826, indicating no significant association.

In Type of Residence, the obtained chi-square value is 3.820, which is higher than the p-value 0.701, indicating no significant association.

In Religion, the obtained chi-square value is 6.901, which is higher than the p-value 0.330, indicating no significant association.

In Monthly Income, the obtained chi-square value is 1.713, which is higher than the p-value 0.944, indicating no significant association.

In Previous Source of Knowledge, the obtained chi-square value is 2.764, which is higher than the p-value 0.598, indicating no significant association.

In Past History of Snakebite, the obtained chi-square value is 0.599, which is lower than the p-value 0.741, indicating no significant association.

It was concluded that the there was no significance association with demographic variable such as age, gender, education, occupation, type of residence, religion, monthly income, previous source of knowledge and past history of snakebite, as their p-values were greater than 0.05.

CONCLUSION

The findings presented in this chapter highlight meaningful patterns and statistically significant outcomes derived from the data collected. Through comprehensive analysis using appropriate statistical methods, the results provide clear insights into the research objectives and support the evaluation of the study hypotheses. The data revealed measurable improvements in participants' knowledge, attitude, and expressed practices regarding snakebite management following the educational intervention. Statistically significant differences were observed between pre-test and post-test scores, affirming the effectiveness of the intervention. Additionally, associations between certain demographic variables and pre-test scores were explored, revealing both significant and non-significant relationships depending on the variable and outcome measured. These interpretations not only validate the study framework but also underscore the relevance of targeted educational strategies in improving public health awareness

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