

“A STUDY TO ASSESS THE EFFECT OF A VIDEO ASSISTED TEACHING PROGRAMME ON KNOWLEDGE AND PRACTICE REGARDING DOG BITE MANAGEMENT AND RABIES PREVENTION AMONG PEOPLE IN SELECTED RURAL AREAS OF PUNE”.

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ABSTRACT

Introduction: A dog bite is a bite upon a person or other animal by a dog. More than one successive bite is often called a dog attack, although dog attacks can include knock-downs and scratches. Though some dog bites do not result in injury, they can result in infection, disfigurement, temporary or permanent disability, or death. Another type of dog bite is the "soft bite" displayed by well-trained dogs, by puppies, and in non-aggressive play.¹**Title of the study:** A study to assess the effect of a video assisted teaching Programme on knowledge and practice regarding dog bite management and rabies prevention among people in selected rural areas of Pune. **Research Methodology:** A pre-experimental one-group pre-test post-test study was conducted among 100 adults in rural Pune to assess the effectiveness of a Video-Assisted Teaching Programme on knowledge and practice regarding dog bite management and rabies prevention. Data were collected using a structured tool and analyzed with descriptive and inferential statistics. The intervention improved participants' knowledge and practices, with validated and reliable tools ensuring ethical compliance. **Result:** Among 100 participants (73% aged 18.1–30 years, 65% female, 46% graduates, 54% private job, 88% rural), pre-test knowledge and practice were poor in 71% (knowledge mean 6.6 ± 1.93 ; practice mean 3.62 ± 1.55). Post-test, 60% had good knowledge, 38% average, 2% poor (mean 14.2 ± 3.01), and 53% had good practice, 30% moderate, 17% poor (mean 7.05 ± 2.07). Improvements were statistically significant (knowledge $t = 21.05$, $p = 0.00001$; practice $t = 14.29$, $p = 0.00001$), with no significant association with demographics ($p > 0.05$). **Conclusion:** The study concluded that the Video-Assisted Teaching Programme was effective in improving knowledge and practice regarding dog bite management and rabies prevention among rural participants. Post-test scores showed significant improvement, while no significant association was found with demographic variables. (**Keywords:** Assess, Effect, Video Assisted Teaching Programme, Knowledge, Practice, Dog Bite Management, Rabies Prevention, People.)

How to cite this article: 1Mrs. Reena Chavan 2Dr. Shivcharan Singh Gandhar 3 Mr. Omkar Goratkar 3Mr. Abhay Giram 3Ms. Vaishnavi Harale. “A STUDY TO ASSESS THE EFFECT OF A VIDEO ASSISTED TEACHING PROGRAMME ON KNOWLEDGE AND PRACTICE REGARDING DOG BITE MANAGEMENT AND RABIES PREVENTION AMONG PEOPLE IN SELECTED RURAL AREAS OF PUNE”.. Int J Drug Deliv Technol. 2026;16(80s):467-474. DOI: 10.25258/ijddt.16.80s.56.

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.²

Need of the Study

Significant dog bites affect tens of millions of people globally each year. It is estimated that 2% of the U.S. population, 4.5–4.7 million people, are bitten by dogs each year. Most bites occur in children, with nearly half of all children in the U.S. being bitten by a dog at least once by the age of 12. In the 1980s and 1990s, the U.S. averaged 17 deaths per year. Between 2011 and 2021 approximately 468 people were killed by dog bites in the United States, averaging 43 deaths per year. Between 2018 and 2021, deaths were more than doubled for both males (age 15 to 37) and females (age 20 to 44). Animal bites, most of which are from dogs, are the reason for 1% of visits to emergency departments in the United States.³

Aim of the Study

“A STUDY TO ASSESS THE EFFECT OF A VIDEO ASSISTED TEACHING PROGRAMME ON KNOWLEDGE AND PRACTICE REGARDING DOG BITE MANAGEMENT AND RABIES PREVENTION AMONG PEOPLE IN SELECTED RURAL AREAS OF PUNE”.

A study to assess the effect of a video assisted teaching Programme on knowledge and practice regarding dog bite management and rabies prevention among people in selected rural areas of Pune.

Methodology

The research methodology includes the methods and approaches that must be employed to gather and assess the data in order to accomplish the study's goals. It makes significant assessments on the validity and quality of the study's conclusions. It offers the broad foundation for standardising the process of acquiring reliable and accurate data for research. Studies are typically more qualitative than quantitative, or the other way around. Because mixed methods research has aspects of both qualitative and quantitative techniques, it falls in the middle of this continuum.⁴

Quantitative research, which generates numerical data and usually seeks to demonstrate causal relationships between two or more variables, is based on conventional scientific techniques. Statistical methods are used to test the relationships' significance and strength.⁵

The researcher adopted a **Quantitative** methodology for this study.

The research design selected for this study is “**Pre-experimental one-group pre-test post-test design**”.

Result

SECTION-I - Demographic data of the sample

Table 1 Demographic Profile.
Table no.1

Demographic Variables	F	%
1. Age (years):		
a. 18.1-30 years	73	73
b. 30.1-40 years	22	22
c. 40.1-50 years	5	5
d. 50.1-60 years	0	0
2. Gender		
a. Female	65	65
b. Male	35	35
3. Education:		
a. No formal education	6	6
b. Primary	27	27
c. Secondary	17	17
d. Graduate	46	46
e. Post-graduate	4	4
4. Occupation		
a. Housewife	32	32
b. Private job	54	54
c. Government job	11	11
d. Business	3	3
5. Residence		
a. Rural	88	88
b. Urban	12	12
6. Ever bitten by an animal before?		
a. Yes	75	75
b. No	25	25
7. If bitten previously, did you receive anti-rabies treatment?		
a. Yes	75	75
b. No	25	25

n=100

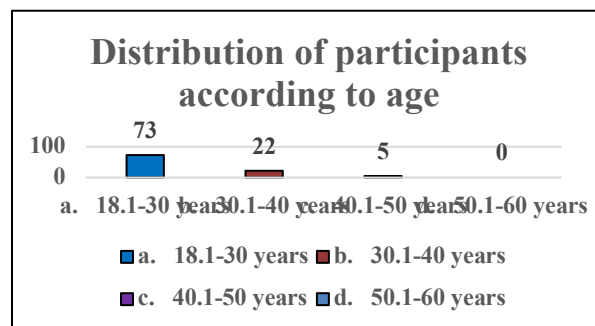


Figure 1 Percentage wise distribution according to Age. The majority of the participants were aged 18.1–30 years, comprising 73% (73 out of 100). This was followed by 30.1–40 years with 22% (22 out of 100) and 40.1–50 years with 5% (5 out of 100). None of the participants belonged to the age group of 50.1–60 years.

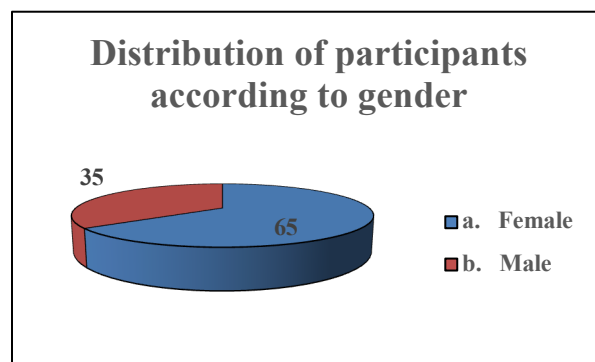


Figure 2: Percentage wise distribution according to Gender. Most of the participants were female, accounting for 65% (65 out of 100), while 35% (35 out of 100) were male.

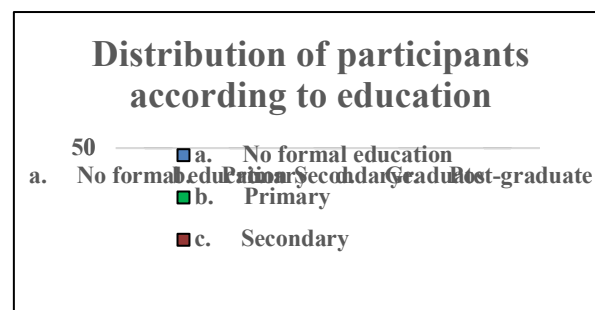


Figure 3: Percentage wise distribution according to Education. The largest proportion of participants were graduates, comprising 46% (46 out of 100). This was followed by those with primary education at 27% (27 out of 100), secondary education at 17% (17 out of 100), no formal education at 6% (6 out of 100), and post-graduate education at 4% (4 out of 100).

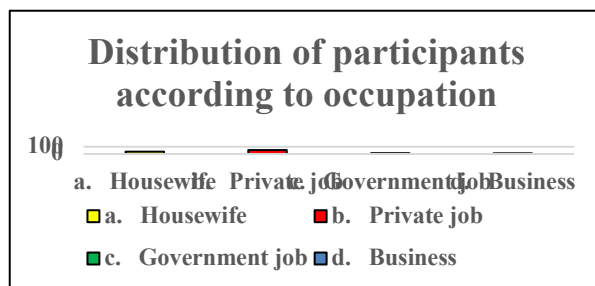


Figure 4: Percentage wise distribution according to Occupation. More than half of the participants were employed in private jobs, constituting 54% (54 out of 100). This was followed by housewives at 32% (32 out of 100), government employees at 11% (11 out of 100), and business owners at 3% (3 out of 100).

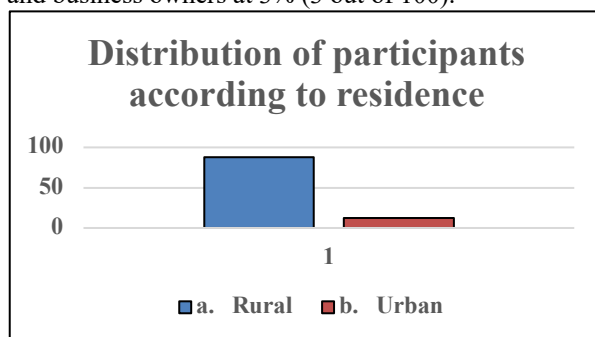


Figure 5: Percentage wise distribution according to Residence. The majority of participants resided in rural areas, accounting for 88% (88 out of 100), while 12% (12 out of 100) were from urban areas.

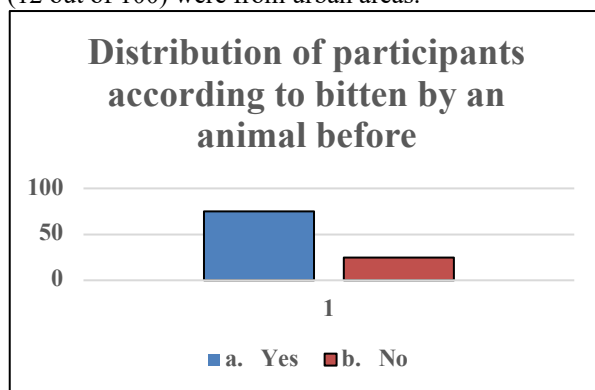


Figure 6: Percentage wise distribution according to History of Animal Bite. A large proportion of participants, 75% (75 out of 100), reported having been bitten by an animal previously, whereas 25% (25 out of 100) had no such history.

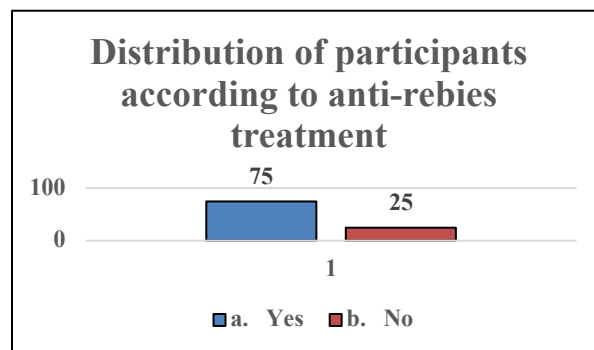


Figure 7: Percentage wise distribution according to Anti-rabies Treatment After Bite. Among those who had experienced an animal bite, 75% (75 out of 100) reported receiving anti-rabies treatment, while 25% (25 out of 100) did not receive treatment.

SECTION II – Data related to assess the knowledge and practice regarding dog bite management and rabies prevention among people in selected rural areas of Pune.

Section II (A) Finding related to assess the Pre test knowledge regarding dog bite management and rabies prevention among people before the intervention.

Table No.2 - Related to Pre test knowledge regarding dog bite management and rabies prevention among people.

Table no.2

n=100				
Level of pre test Knowledge	F	%	Mean	SD
Poor(0-6)	7	7	6.6	1.93
Average (7-13)	1	1		
Good (14-20)	2	2		

Overall, the pre-test findings indicate that most participants lacked sufficient knowledge regarding dog bite management and rabies prevention, thereby emphasizing the need for an effective educational intervention such as a video assisted teaching programme to improve knowledge and awareness among people in rural areas.

Section II B: Finding related to assess the Pre test Practice regarding dog bite management and rabies prevention among people before the intervention.

Table No.3 - Related to Pre test Practice regarding dog bite management and rabies prevention among people.

Table no.3

n=100				
Level of pre test Practice	F	%	Mean	SD

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Poor (0-6)	71	71	3.62	1.55
Average (7-13)	28	28		
Good (14-20)	1	1		

Overall, the pre-test practice findings highlight significant gaps between knowledge and actual practice among the participants, underscoring the necessity of a structured and visual educational intervention to improve practical behaviors related to dog bite management and rabies prevention in rural communities.

SECTION III – Data related to assess the Post test knowledge and practice regarding dog bite management and rabies prevention among people in selected rural areas of Pune.

III (A) Finding related to assess the Post test knowledge regarding dog bite management and rabies prevention among people After the intervention.

Table No.4 - Related to Post test knowledge regarding dog bite management and rabies prevention among people.

Table no.4
n=100

Level of post test Knowledge			n	
Poor(0-6)			2	1
Average (7-13)				
Good (14-20)				

Overall, the post-test findings confirm that the video assisted teaching programme was effective in enhancing awareness, understanding, and knowledge related to dog bite management and rabies prevention among people in the selected rural areas of Pune.

Section III B: Finding related to assess the Post test Practice regarding dog bite management and rabies prevention among people After the intervention.

Table No.5 - Related to Post test Practice regarding dog bite management and rabies prevention among people.

Table no.5

of Post test Practice			an	SD
Poor (0-4)	7	7	05	.07
Moderate (5-7)	0	0		
Good (8-10)	3	3		

Overall, the post-test findings indicate that the video assisted teaching programme was effective in improving practical behaviors related to dog bite management and rabies prevention among people in selected rural areas of Pune.

SECTION IV – Data related to effect of video assisted teaching Programme on knowledge and

practice regarding dog bite management and rabies prevention among people in selected rural areas of Pune.

IV (A) Finding related to effect of video assisted teaching Programme on knowledge regarding dog bite management and rabies prevention among people in selected rural areas of Pune.

Table No.6 - Related to compare the effect of video assisted teaching Programme on knowledge and practice regarding dog bite management and rabies prevention among people before and after the intervention.

Table no.6
n=100

Effectiveness on video assisted teaching Programme on dog bite management	Mean	SD	DF	T test calculated value	P value	Remark
Pre test	6.6	1.93	9	21.05	0.0001	Significant
Post test	14.20	3.01	9			

Based on these findings, the null hypothesis (H_0) stating that there is no significant difference in knowledge before and after the intervention is rejected, and the research hypothesis (H_1) is accepted. Thus, the video assisted teaching programme proved to be an effective educational intervention for enhancing knowledge related to dog bite management and rabies prevention.

Section IV (B) Finding related to effect of video assisted teaching Programme on practice regarding dog bite management and rabies prevention among people in selected rural areas of Pune.

Table No.7 - Related to compare the effect of video assisted teaching Programme on practice regarding dog bite management and rabies prevention among people before and after the intervention.

Table no.7

“A STUDY TO ASSESS THE EFFECT OF A VIDEO ASSISTED TEACHING PROGRAMME ON KNOWLEDGE AND PRACTICE REGARDING DOG BITE MANAGEMENT AND RABIES PREVENTION AMONG PEOPLE IN SELECTED RURAL AREAS OF PUNE”.

Effectiveness on Practice of dog bite management and rabies prevention	Mean	SD	D F	T test calculated value	P value	Remark
Pre test	3.62	1.55	99	14.29	0.0001	Significant
Post test	7.05	2.07	99			

Based on these results, the null hypothesis (H_0) is rejected, and the research hypothesis (H_1) is accepted, demonstrating that the video assisted teaching programme significantly enhanced both practice and compliance with recommended measures for dog bite management and rabies prevention.

SECTION V – Finding related to an association between knowledge and practice with selected demographic variables.

Section V (A) – Finding related to an association between knowledge with selected demographic variables.

Table no.8

n=100

Demographic Variables	Average	Go	or	D F	Chi Table value	Chi calculated value	P value	Remark
1. Age (years):								
a. 18.1-30 years	23	2	48	6	12.592	3.366	0.76	N
b. 30.1-40 years	3	0	19				62	S

c. 40.1-50 years	1	0	4					
d. 50.1-60 years	0	0	0					
2. Gender								
a. Female	16	27	4	2	5.991	0.813	0.66	N
b. Male	11	04	2				66	S
3. Education:								
a. No formal education	1	0	5	8	15.507	5.951	0.53	N
b. Primary	10	0	17					
c. Secondary	2	0	15					
d. Graduate	14	2	30					
e. Post-graduate	0	0	4					
4. Occupation								
a. Housewife	9	1	22	6	12.592	1.285	0.972	N
b. Private job	16	1	37					
c. Government job	2	0	9					
d. Business	0	0	3					
5. Residence								
a. Rural	24	22	62	2	5.991	0.084	0.9	N

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b. Urban	3	0	9				5	
							9	
6. Ever bitten by an animal before?								
a. Yes	2	1	5	2	5.99	4.238	0.1	N
b. No	4	1	0					
	3	1	2		1		2	S
			1					
7. If bitten previously, did you receive anti-rabies treatment?								
a. Yes	2	1	5	2	5.99	4.238	0.1	N
b. No	4	1	0					
	3	1	2		1		2	S
			1					

This section presents the interpretation of the association between **pre-test knowledge regarding dog bite management and rabies prevention** and selected demographic variables. The chi-square test was applied to determine the association, and the level of significance was set at $p < 0.05$.

Section V (B) – Finding related to an association between practice with selected demographic variables.

Table no.9

n=100

Demographic Variable	Gender	Mod	or	P	o	D	Chi Tab le valu e	Chi calcu lated value	P va lue	R e m ar k

1. Age (years):								
a. 18.1-30 years	2	20	51	6	12.592	1.023	0.985	NS
b. 30.1-40 years	0	7	15					
c. 40.1-50 years	0	0	5					
d. 50.1-60 years	0	0	0					
2. Gender								
a. Female	1	16	48	2	5.991	0.801	0.67	NS
b. Male	1	11	23					
3. Education:								
a. No formal education	0	3	3	8	15.507	7.943	0.439	NS
b. Primary	0	11	16					
c. Secondary	0	2	15					
d. Graduate	2	10	34					
e. Post-graduate	0	1	3					
4. Occupation								
a. Housewife	1	10	21	6	12.592	0.947	0.988	NS
b. Private job	1	14	39					

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c. Government job	0	3	8					
d. Business	0	0	3					
5. Residence								
a. Rural	2	23	63	2	5.991	0.271	0.873	N S
b. Urban	0	4	8					
6. Ever bitten by an animal before?								
a. Yes	1	23	51	2	5.991	2.541	0.281	N S
b. No	1	4	20					
7. If bitten previously, did you receive anti-rabies treatment?								
a. Yes	1	23	51	2	5.991	2.541	0.281	N S
b. No	1	4	20					

This section presents the interpretation of the association between **pre-test practice regarding dog bite management and rabies prevention** and selected demographic variables. The chi-square test was used to determine the association, and the level of significance was set at $p < 0.05$.

Conclusion:

This chapter presented the analysis of demographic characteristics, knowledge, and practice scores to evaluate the effectiveness of the video assisted teaching programme on dog bite management and rabies prevention among people in selected rural areas of Pune. The comparison of pre-test and post-test results showed a statistically significant improvement in both knowledge and practice after the intervention. Most participants shifted from poor knowledge and practice levels to good and moderate levels following the programme. No significant association was found between knowledge or practice and selected demographic variables, indicating that the intervention was effective across all groups. The study concludes that the video assisted teaching programme is an effective educational strategy for improving knowledge and practice regarding dog bite management and rabies prevention.

Recommendation:

- Similar studies can be conducted with a larger sample size and in different geographic settings.
- Comparative studies between rural and urban populations are recommended.
- Longitudinal studies should be undertaken to assess long-term retention of knowledge and practices.
- Regular video assisted teaching programmes on rabies prevention should be implemented at the community level.
- Future studies should include assessment of attitude and actual behavioural changes related to dog bite management.

Conflict of Interest

The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

Funding Source

There is no funding Source for this study

Acknowledgement:

Most sincerely convey our deep sense of gratitude to my principal and research guide for remarkable guidance and academic support during this study. At last we are grateful about the support and help we got throughout the research study from our colleagues and participants contribute to accomplishing the research study successfully.

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