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A Study To Assess The Effectiveness Of Video Assisted Teaching Programme On Cancer Awareness Among Selected Degree College Of Bhopal City.

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Abstract:

Cancer, a leading cause of morbidity and mortality worldwide, necessitates innovative approaches to enhance awareness and education. This study assesses the effectiveness of a video-assisted teaching program on cancer awareness among degree college students in Bhopal city. A pre-experimental one-group pretest-posttest design was employed, with a sample size of 50 students. The results revealed a significant association between education status and post-test knowledge scores, indicating its impact on knowledge outcomes. However, age, religion, type of family, family income, occupation, and source of information did not demonstrate significant associations with post-test knowledge scores. The study concludes that video-assisted teaching programs can be an effective tool in enhancing cancer awareness, particularly among students with higher education status. The findings have implications for healthcare education, highlighting the need for targeted interventions to improve cancer awareness and knowledge among diverse populations.

Index Terms **- Component, formatting, style, styling, insert.**

INTRODUCTION

Cancer is one among the three leading diseases in the world and it is found that cancer of breast is the leading cancer among women. Cancer can develop in almost any organ or tissue, such as the lung, colon, breast, skin, bones or nerve tissues.There are around 19.3 million new cancer cases diagnosed each year globally, with the number expected to rise significantly in the coming years due to population growth and aging.Cancer is one of the most prevalent and life-threatening diseases worldwide. It represents a significant global health challenge and has become one of the leading causes of morbidity and mortality. The burden of cancer is immense, affecting millions of individuals, families, and communities, with a substantial impact on social, psychological, and economic wellbeing.The effectiveness of teaching strategies in healthcare education is an essential aspect of enhancing awareness among the general public. Traditional teaching methods such as lectures, pamphlets, and posters may not be as effective in engaging students or the target population, particularly when it comes to complex and sensitive topics like cancer. The increasing popularity of multimedia and technology-based teaching tools has provided a new avenue for delivering health

education in an engaging and interactive manner. Video-assisted teaching programs have shown promise in various educational fields, including healthcare, as they are able to convey information visually and audibly, helping to improve understanding and retention.

Literature Review:-

Cancer is a leading cause of morbidity and mortality worldwide, with a significant number of cases attributed to modifiable risk factors. According to a report by the World Health Organization (WHO), nearly 9.6 million people died from cancer in 2018, and this number is expected to increase significantly over the next few decades. Early detection and preventive measures are crucial in mitigating the impact of cancer. Therefore, awareness of cancer and its risk factors is essential for reducing the burden of the disease.The meaning of the word cancer means “crab”. According to the World Health Organization, cancer is the second most common cause of mortality worldwide. Deaths from cancer worldwide are projected to continue to rise to over 13.1 million in 2030.1 Amongst the cancer, the three leading cancers in India which causes high mortality and morbidity includes cervical cancer, cancer and upper aerodigestive tract carcinoma.2 Despite having population-based screening programmes like VIA-VILI (Visual inspection via Acetic acid- Visual inspection via Lugol’s Iodine) for cervical cancer, there are lots of persons diagnosed with cervical cancers due to lack of awareness about the screening modalities. There are certain measures by which cervical cancers can be prevented like use of condoms, avoiding promiscuous relationship, etc..3 HPV has been implicated in the causation of cervical cancer. So HPV vaccination is another means by which cervical cancer can be prevented.4 Likewise cancer can be prevented by self breast examination and mammogram.5 Oral cancers can be prevented by explaining the ill effects of tobacco in the form of campaigning or as pictorial representation. Patel et al. (2020) in India revealed that a majority of college students had poor knowledge about the risk factors of cancer, such as tobacco use, alcohol consumption, and poor dietary habits. Hannan et al. (2020) found that college students in the United States had a high prevalence of risk factors for cancer, including poor dietary habits, sedentary lifestyles, and substance use such as smoking and alcohol consumption. These risk factors contribute to an increased risk of various types of cancers, particularly lung, colorectal, and liver cancers.A study by Singh et al. (2019) evaluated the effectiveness of video-assisted teaching in improving the knowledge and attitudes of nursing students regarding diabetes mellitus. The study found that video-assisted teaching significantly enhanced students' understanding of the disease and its management. The success of VAT in this context suggests that it could be an effective tool for teaching cancer awareness as well, by providing visually engaging content on cancer prevention, risk factors, symptoms, and screening procedures.

Sharma et al. (2021) Cancer is a leading cause of death worldwide, and awareness is key to reducing cancer-related morbidity and mortality. College students, as emerging adults, are an important target group for health education programs, as they are at an age where lifestyle choices can significantly impact long-term health outcomes. Studies have shown that while the knowledge about cancer is somewhat widespread, many students lack in-depth understanding of preventive measures, risk factors, and early signs of cancer.According to a study by Beheshtian et al. (2020), VAT in health education has been shown to

improve knowledge retention and engagement compared to traditional lecture-based methods. The flexibility of watching videos at one's own pace also allows for repeated viewing, which aids in reinforcing information.Several studies specifically address the use of video-assisted teaching to enhance cancer awareness. These studies provide evidence supporting VAT's potential in raising awareness, particularly among college students and younger populations.

Sahu k. et al 2020 study supports the effectiveness of video-assisted teaching programs in enhancing cancer awareness, particularly among college students. While video-based interventions are engaging and allow for improved retention of information, it is essential to consider challenges such as technological access and the need for supplementary materials to ensure comprehensive learning. Future research could focus on optimizing video content and exploring hybrid models combining video learning with other interactive teaching methods to maximize the effectiveness of cancer awareness programs. By integrating the positive findings from previous studies into a structured video-assisted teaching program, this research could further contribute to enhancing cancer awareness and prevention among college students.

OBJECTIVES:-

1. To assess the pretest level of knowledge, attitude and prevalence of risk factors regarding cancer among selected degree colleges of Bhopal city.
2. To Assess the post-test level of video assisted teaching programme on knowledge, attitude and prevalence of risk factors regarding cancer among selected degree college of Bhopal city.
3. To find out the association between the pretest level of knowledge, attitude and prevalence of risk factors and their selected demographic variables

Research Methodology:-The study employed a semi-structured questionnaire to assess the knowledge of selected degree college students regarding cancer awareness. The instrument was divided into two sections. **Section I** consisted of 11 items capturing demographic variables such as age, sex, religion, education, occupation, monthly income, dietary pattern, personal habits, exercise, family history of myocardial infarction, and associated diseases. **Section II** included 32 items specifically designed to evaluate knowledge on cancer awareness, with four options for each item, of which only one was correct. The knowledge component covered topics such as the structure and functions of the heart (5 items), physiological rehabilitation (19 items), psychological rehabilitation (3 items), vocational rehabilitation (2 items), and sexual rehabilitation (3 items). Scoring was based on correct responses, with one point awarded for each correct answer, and the total score categorized into three levels of knowledge: inadequate (0–10; <50%), moderate (11–20; 50–75%), and adequate (21–30; >75%).

The **video-assisted teaching programme (VATP)** was meticulously developed in consultation with experts and grounded in literature reviews, including textbooks, journals, and research articles. The content was organized systematically, covering an introduction, the structure and functions of the heart, cancer awareness (with subsections on physiological, psychological, vocational, and sexual rehabilitation), and a conclusion. The content validity of both the tool and VATP was established with the assistance of subject experts. Reliability testing of the semi-structured questionnaire was conducted using the test-retest method with Karl Pearson's correlation coefficient, yielding a high reliability score ($r = 0.93$), confirming the tool's consistency and dependability.

A pilot study was conducted to assess the feasibility of the methodology and the effectiveness of the VATP. Five degree college students were selected through purposive sampling, and the semi-structured questionnaire was administered as a pre-test to evaluate baseline knowledge. Following this, the VATP was implemented over a 25–30 minute session, and a post-test was conducted after seven days using the same tool. Results indicated that post-test mean knowledge scores were higher than pre-test scores, demonstrating the effectiveness of the VATP. The pilot study confirmed the feasibility of the tool and methodology for the main study, with the reliability findings ensuring that the questionnaire was a stable and consistent instrument for assessing knowledge on cancer awareness.The research design adopted for this study is a pre-experimental, one-group pretest-posttest design. This straightforward design involves selecting only one experimental group as the study subjects. The target population comprises both male and female degree college students from Bhopal city. A sample size of 50 students was chosen from selected

degree colleges within Bhopal, adhering to specific inclusion criteria. This design allows for the assessment of the effect of the intervention by comparing outcomes measured before and after its implementation within the same group.

Result :- The analysis of the association between selected demographic characteristics and post-test knowledge scores was conducted using the Chi-Square test, and the results reveal varied levels of significance across different variables. For age, the computed Chi-Square value was 8.29, which is lower than the critical value at 6 degrees of freedom, with a p-value < 0.05, indicating no significant association between age and post-test knowledge scores. Similarly, the variable of religion demonstrated a Chi-Square value of 1.3, also lower than the tabulated value, suggesting no statistically significant relationship with the knowledge scores.

In contrast, education status exhibited a significant association, with a Chi-Square value of 14.77, exceeding the tabulated value and a p-value < 0.05, highlighting that education level plays a critical role in influencing post-test knowledge scores. The occupation variable yielded a Chi-Square value of 13.36, which, despite being higher than the tabulated value, was not statistically significant, suggesting limited influence on knowledge improvement.

Further, the type of family recorded a Chi-Square value of 5.41, lower than the critical value, indicating no significant relationship with post-test knowledge scores. Family income, with a Chi-Square value of 13.01, also failed to demonstrate statistical significance, reinforcing that income levels did not significantly impact the knowledge outcomes. Lastly, the source of information had a Chi-Square value of 4.59, which was not statistically significant, indicating that the means of obtaining information did not have a notable effect on post-test knowledge scores. Overall, the results underscore that among the studied demographic variables, only education status showed a significant association with the post-test knowledge scores, emphasizing the pivotal role of education in enhancing knowledge levels.

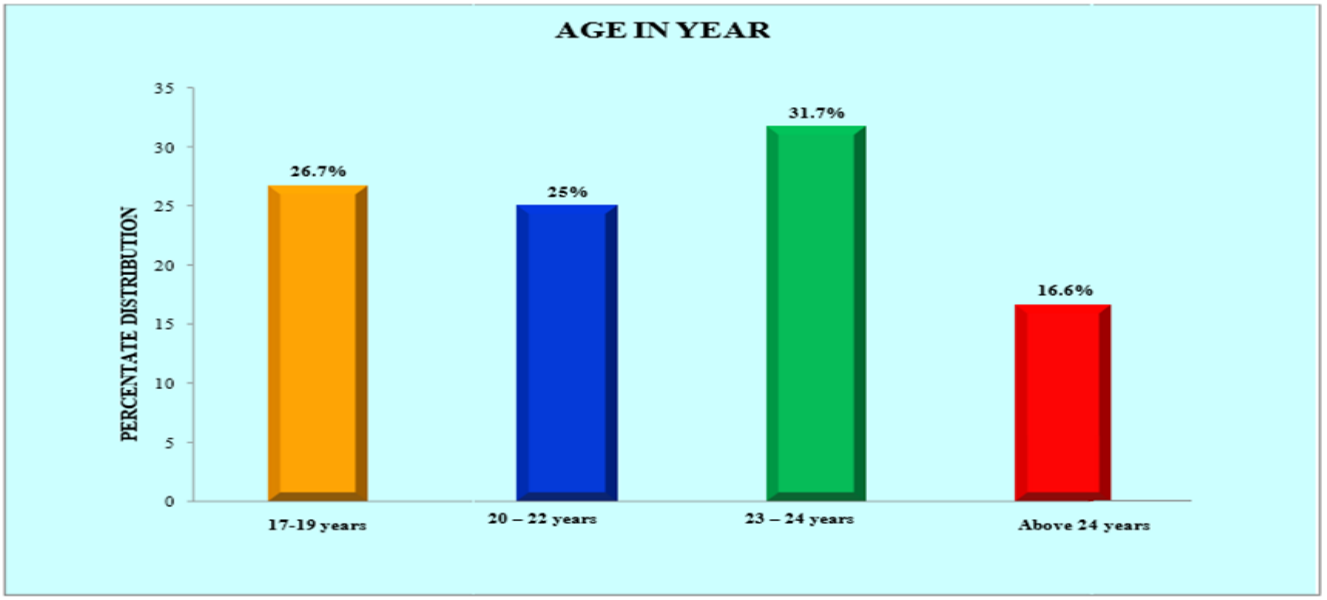
Result statistics:-Table 4.0 Frequency and percentage distribution of management and prevention of Cancer among selected degree college students of Bhopal city based on their age in year, religion, education status, occupation, family income, type of family, & sources of knowledge.

S. No.	Demographic variables	Particular	Frequency (f)	Percentage (%)
1	Ageinyears	17-19years	16	26.7
		20-22years	15	25
		23-24years	19	31.7
		Above24 year	10	16.6
2	Religion	Hindu	33	55
		Muslim	17	28.3
		Christian	7	11.7

		Other	3	5

3	Educationstatus	Non-FormalEducation	8	13.3
		PrimaryEducation	17	28.3
		SecondaryEducation	15	25
		GraduateAndAbove	20	33.4
4	Occupation	Privatejob	14	23.3
		Governmentjob	6	10
		Dailywages	5	8.3
		Housewife	35	58.3
5	Typeoffamily	Jointfamily	17	28.3
		Nuclearfamily	35	58.3
		Extendedfamily	8	13.3
6	FamilyIncome	Rs5000–10,000	13	21.7
		Rs1,0001–15,000	18	30
		Rs15,001–20,000	13	21.7
		AboveRs20,000	16	26.6
7	Source o f information	Mass Media	17	28.3
		Television	14	23.3

		Newspaper	10	16.7
		SocialMedia	19	31.7



The above table depicts the frequency and percentage distribution of the demographic information of the sample group subject who were taken to assess the effectiveness of video assisted teaching programme on knowledge regarding management & prevention of Cancer.

Table-4.2.1: Frequency and percentage of the pre test level of knowledge regarding managementandpreventionofCancer. n=60

S. No.	LevelofKnowledge	Range for Score	Frequency	Percentage
1	InadequateKnowledge	0 -10	42	70
2	ModerateKnowledge	11-20	16	26.7
3	AdequateKnowledge	21- 30	02	3.3

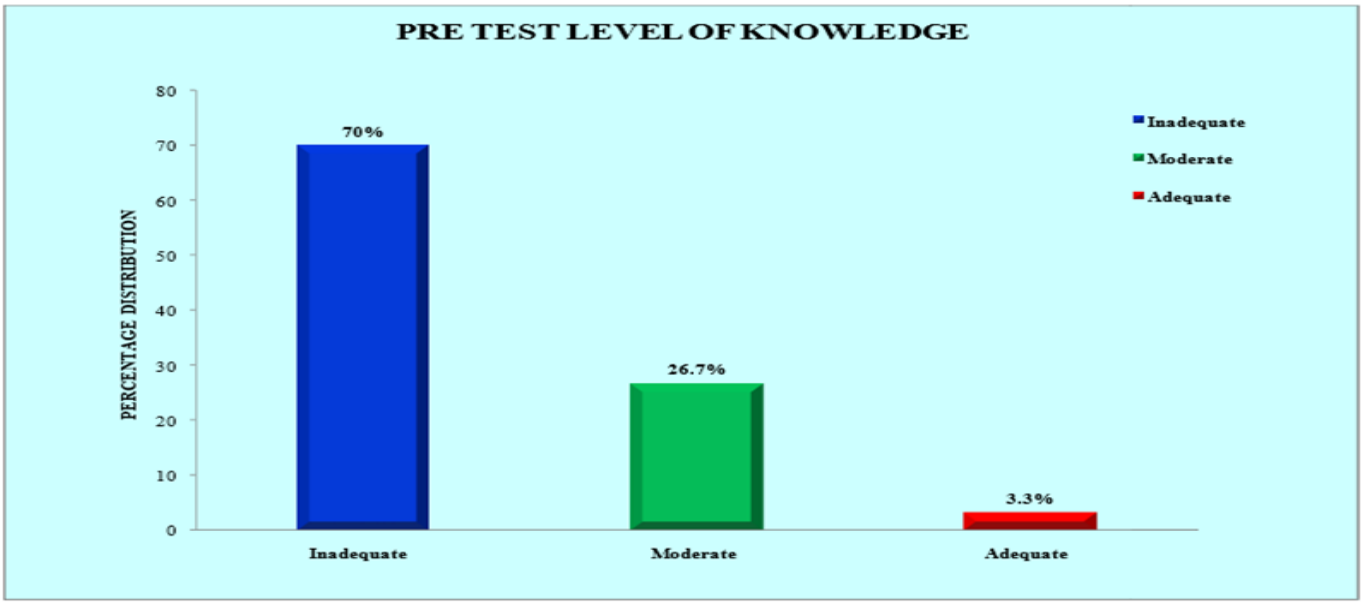


Figure-4.2.1: Bar diagram showing percentage distribution of selected degree college students of Bhopal City according to their pre test level of knowledge.

Interpretation:The above table shows that pretest level of knowledge 42(70%) had inadequate knowledge whereas 16 (26.7

%) had moderate knowledge and 2 (3.3 %) had adequate knowledge regarding management and prevention of Canceramong degree college students.

Table-4.3.1: Frequency and percentage of the post-test level of knowledge regarding managementandpreventionofCancer. n=60

S. No.	LevelofKnowledge	Range (for Score)	Frequency	Percentage
1	InadequateKnowledge	0-10	02	3.3
2	ModerateKnowledge	11-20	32	53.3
3	AdequateKnowledge	21-30	26	43.4

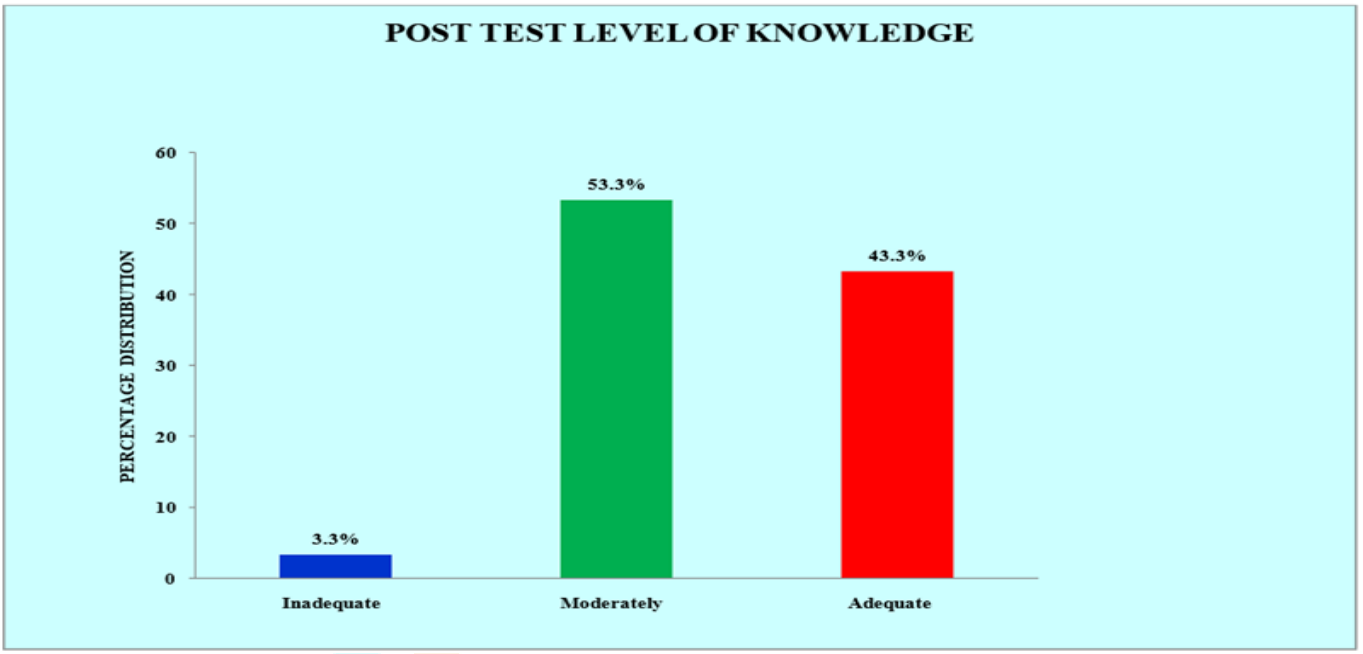


Figure-4.3.1: Bar diagram showing percentage distribution of selected degree college students of Bhopal City according to their post-test level of knowledge.

Interpretation: The above tables howsthat post-test level of knowledge 2(3.3%) had adequate knowledge whereas 32 (53.3%) had moderate knowledge and 26 (43.4 %) had inadequate knowledge regarding management and prevention of Cancer among degree college students.

Table.4.1–Comparison Pre And Post-test level knowledge n=60

levelof knowledge	Grade	Range	Frequency	Percentage	Mean	SD
Pretest	InadequateKnowledge	0-10	42	70	9.9	4.15
	ModerateKnowledge	11-20	16	26.7		
	AdequateKnowledge	21-30	02	3.3		
Post-test	InadequateKnowledge	0-10	02	3.3	18.8	4.92
	ModerateKnowledge	11-20	32	53.3		
	AdequateKnowledge	21-30	26	43.4		

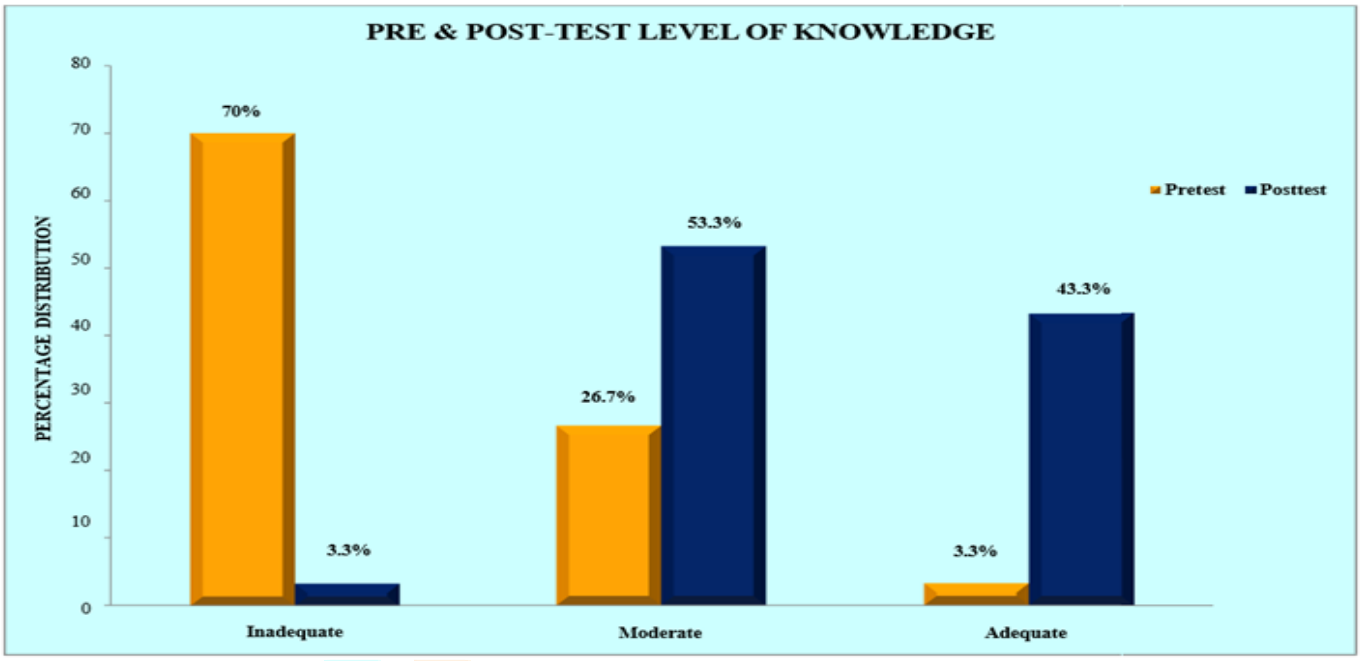


Figure - 4.4.1 Bar diagram showing the comparison between pre and post-test level of knowledge

Interpretation:

The Above Table Shows That Pretest Level Of Knowledge 42(70%) had inadequate knowledge whereas 16 (26.7 %) had moderate knowledge and 2 (3.3 %) had adequate knowledge and post-test level of knowledge 2 (3.3 %) had adequate knowledge whereas 32 (53.3%) had moderate knowledge and 26 (43.4 %) had inadequate knowledge regarding management and prevention of Cancer among degree college students.

Table-4.4.2: Mean, SD, & t – test calculation to find out significance difference between Pre & Post- test level of knowledge regarding management and prevention Cancer= 60

levelof knowledge	**Mean**	**Mean difference**	**Mean Percentage (%)**	**Standard deviation(SD)**	**df**	**'t' value**
Pre-test	**9.9**	**8.9**	**34.5**	**4.15**	**59**	**10.85***
Post-test	**18.8**		**65.5**	**4.92**		

The‘t’value(at‘t’$_{59}$=10.85,P≤0.05)&PValue(‘t’$_{59}$=2.00,,P≤0.05)

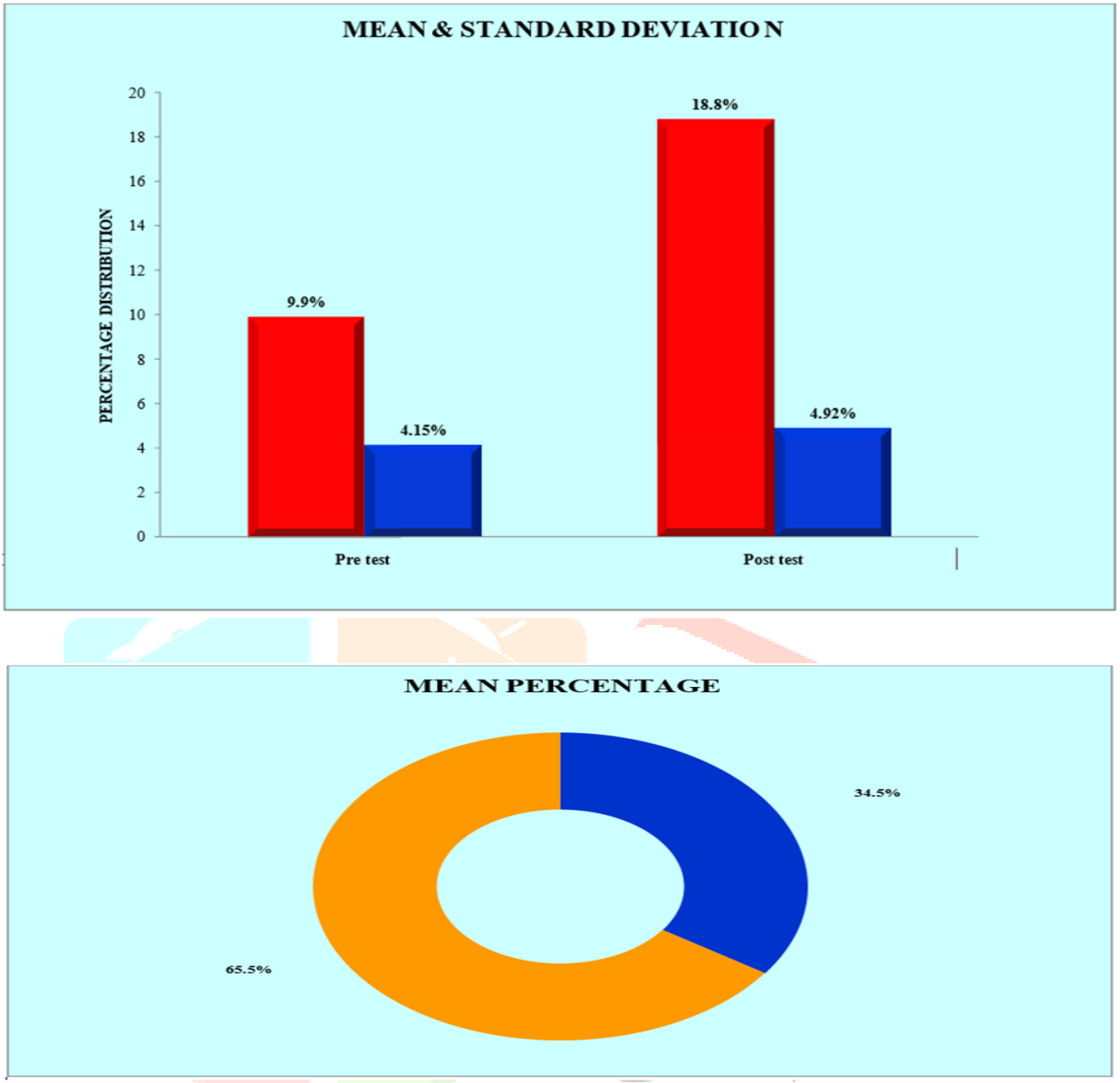


Figure No. 4.4.3 - Doughnut diagram showing mean difference of pre and post-test level of knowledge regarding video assisted teaching programme among selected degree college students of Bhopal City

Interpretation:The above table shows that the mean post- test level of knowledge (18.8) is lower than the mean pre- test level of knowledge (9.9) and the standard deviation of pre - test level of knowledge (SD ± 4.15) is less than the standard deviation of post- test level of knowledge (SD ± 4.92), which reveals that effectiveness of video assisted teaching programme among selected degree college students of Bhopal City after distribution of VAT in improved.

The findings of the study demonstrate a significant improvement in knowledge regarding the prevention and management of cancer among selected degree college students in Bhopal City following the implementation

of the video-assisted teaching programme (VATP). The mean difference between pre-test and post-test knowledge scores was 8.9, with the computed paired
t-value (t_{59} = 10.85, $P \leq 0.05$) being significantly greater than the tabulated *t*-value (t_{59} = 2.00, $P \leq 0.05$). This statistical result led to the rejection of the null hypothesis and acceptance of the research hypothesis (H_1), confirming that there was a significant difference between pre-test and post-test knowledge scores. Additionally, the standard deviation (SD) of pre-test scores (SD ± 4.15) was observed to be higher than that of post-test scores (SD ± 4.92), indicating greater consistency in post-test knowledge levels.

The analysis further revealed that the mean percentage of post-test knowledge (65.5%) was markedly higher than the mean pre-test knowledge percentage (34.5%), with an improvement of 31% in mean percentage scores. The significant *t*-value (t_{59} =
10.85, $P < 0.05$) underscores the effectiveness of the VATP in enhancing knowledge levels. These results strongly suggest that the video-assisted teaching programme is an effective educational intervention for improving knowledge on cancer prevention and management among degree college students. Consequently, the research hypothesis (H_1) is accepted, affirming that the mean
post-test knowledge score is significantly higher than the mean pre-test knowledge score at a 0.05 level of significance.

Table-4.5.1:Chisquarevalueshowingassociationofpost-testlevelofknowledge

withtheirselecteddemographicvariable n–60

Demographic variable	**level of knowledge**			**Chisquare χ^2**	**df**	**Tabulated value**	**Pvalue**	**Inference**
	inadequate	**moderate**	**Adequate**					
AGEINYEAR								
17-19years	**0**	**6**	**10**					
20-22years	**1**	**8**	**6**					
23-24years	**1**	**14**	**4**	**8.29**	**6**	**12.59**		**NS**
Above24 year	**0**	**4**	**6**					
RELIGION								
Hindi	**1**	**18**	**14**					
Muslim	**1**	**8**	**8**					
Christian	**0**	**4**	**3**	**1.3**	**6**	**12.59**		**NS**
Other	**0**	**2**	**1**					

EDUCATIONSTATUS							
nonformal education	**0**	**6**	**2**	**14.77**	**6**	**12.59**	**S***
Primaryeducation	**1**	**12**	**4**				
Secondaryeducation	**1**	**2**	**12**				
Graduate And Above	**0**	**12**	**8**				
OCCUPATION							
Private Job	**0**	**4**	**10**	**13.36**		**12.59**	**S***
Government	**0**	**2**					
Job Daily Wages	**1**	**4 0**		**6**			
Housewife	**1**	**22**	**12**				
TYPEOFFAMILY							
Jointfamily	**1**	**6**	**10**				
Nuclearfamily	**1**	**2**	**5.41 4**			**9.49**	**NS**
	0		**14**				
Extendedfamily	**0**	**6**	**2**				
FAMILYINCOME							
Rs5000–10,000	**1**	**8**	**4**				
Rs1,0001–15,000	**Rs15,001 20,000**		**0 1**	**10 2**		**8 13.01 10**	**6**

					12.59	S*
AboveRs20,000	**0**	**12**	**4**			
SOURCEOFINFORMATION						
Massmedia	**1**	**10**	**6**			
Televisio	**0**	**6**				
		8		**4.59**	**12.59**	**NS**
n	**0**	**4**		**6**		
		6				
Newspap						
er						
SocialMedia	**1**	**12**	**6**			

Designation:*indicates significant at the level of 0.05.

The analysis of the association between post-test knowledge scores and selected demographic variables among degree college students of Bhopal City reveals varied results. The calculated Chi-Square values demonstrate that certain demographic variables have significant associations, while others do not. The demographic variable "age in years" yielded a Chi-Square value of 8.29, which is lower than the tabulated value at 6 degrees of freedom ($p < 0.05$), indicating no significant association with post-test knowledge scores. Similarly, the variable "religion" also showed no significant association, with a calculated Chi-Square value of
1.3. Conversely, "education status" demonstrated a significant association with post-test knowledge, as the calculated Chi-Square value of 14.77 exceeded the tabulated value at 6 degrees of freedom ($p < 0.05$).The variable "occupation" yielded a Chi-Square value of 13.36, indicating a significant association, whereas "type of family" (Chi-Square value 5.41), "family income"
(Chi-Square value 13.01), and "source of information" (Chi-Square value 4.59) showed no significant association with post-test knowledge scores. These findings suggest that demographic variables such as age, religion, type of family, and source of information are not associated with post-test knowledge levels, while education status and occupation are significantly associated.Overall, the results indicate that most of the demographic variables are independent of post-test knowledge levels, except for education status and occupation, which show a significant relationship. This supports the acceptance of the research hypothesis (H_2), which states that there is a significant association between post-test knowledge and selected demographic variables regarding cancer awareness at a 0.05 level of significance.

Discussion, Conclusion & Implications:

The findings of the current study underscore the critical importance of creating awareness about cancer prevention and early detection among degree college students. This study highlights the effectiveness of Video-Assisted Teaching (VAT) as an educational tool for improving knowledge about cancer. The results have significant implications in the fields of nursing education, practice, administration, and research.In nursing education, it is essential that the curriculum equips future nurses with the necessary knowledge to assist clients and the community in healthcare aspects, particularly regarding cancer prevention and management. Including content on cancer in the curriculum, along with training in preparing and using VAT, can enable nursing students to educate the public effectively. In nursing practice, nurses with knowledge about cancer can play a vital role in disseminating health information. Nurses should actively engage in organizing health education programs, conferences, and seminars to raise public awareness and update their knowledge on cancer prevention and early detection. The study demonstrated the efficacy of VAT as a teaching method, emphasizing the role of nurses as facilitators in educating the public about cancer.From an administrative perspective, nurse administrators should implement outreach programs to raise public awareness about cancer both within and outside hospital settings. Regular in-service education programs for staff should be organized to ensure continuous knowledge updates, enabling them to educate the public effectively. Adequate funding should be allocated to develop health education materials and ensure their accessibility to hospital staff and the community. Finally, in nursing research, the study highlights the importance of research in enhancing knowledge, skills, and attitudes within the nursing profession. Future research could focus on the effectiveness of VAT on various aspects of nursing education and practice, enabling nurses to disseminate information on cancer prevention and alternative treatment approaches.Based on the study findings, several recommendations are proposed. First, a descriptive study could be conducted to assess cancer awareness levels. Second, similar studies could be carried out on larger sample sizes for broader generalization of findings. Third, awareness and enlightenment campaigns should be initiated to emphasize cancer prevention. Lastly, descriptive studies could also explore attitudes toward cancer and its prevention. These recommendations aim to further contribute to the knowledge and awareness needed to combat the growing burden of cancer effectively.

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