

Effectiveness of Video Assisted Teaching Module (VATM) on Contraceptive Methods with Regard to Knowledge and Attitude of Couples Residing in the Villages of Sikkim

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Abstract

Background: Uncontrolled population growth is currently the most pressing issue in India, and efforts are being made to address it through family planning. The goal of limiting family size and achieving population stabilization is a commonly discussed topic. This study aims to assess the effectiveness of the Video Assisted Teaching Module (VATM) on contraceptive methods with regard to the knowledge and attitude of the couples in the villages of Sikkim.

Methods: The study utilized a true experimental pretest-posttest design with 160 couples (80 in the Experimental group and 80 in the Control group) selected from 4 villages under Gangtok District using a cluster randomization technique. A knowledge questionnaire with 20 items and a Five-point Likert scale was used to assess pre-intervention knowledge and attitude toward contraceptive methods, respectively. After administering the Video Assisted Teaching Module, post-intervention knowledge and attitude were assessed using the same tools after one week. Data were analyzed using Jamovi version 2.3.

Result: The study finding reveals that prior to the intervention, only 11.25% of husbands and 13.75% of wives in the Experimental group had good knowledge about contraceptive methods, while 77.5% of husbands and 81.25% of wives had an unfavorable attitude toward them. However, after undergoing the intervention, there was a significant increase in knowledge and attitude scores for both husbands and wives. Specifically, 71.25% and 77.5% of husbands and wives had good knowledge, and 96% and 98% had a favorable attitude toward contraceptive methods. The study found that pre-test knowledge and attitude were associated with demographic factors and showed a positive correlation between experimental and control groups.

Conclusion: The study concluded that the pre-test revealed inadequate knowledge and attitude towards contraceptive methods among married eligible couples. However, the video-assisted teaching program significantly improved knowledge and a more positive attitude toward contraception in the experimental group. Therefore, the program was deemed effective in enhancing the knowledge and attitude of married eligible couples.

Keywords: Knowledge; Attitude; VATM; Married eligible couples; Contraceptive methods

Introduction

India is facing a significant problem with uncontrolled population growth, which has resulted in several challenges such as resource strain, poverty, and environmental degradation. To address this problem, the government has implemented various programs and policies to promote family planning, including access to contraceptives, awareness campaigns, and incentives for having fewer children. The goal is to ensure a stationary population with a zero or close to zero population growth rate, which will require sustained efforts to reduce the fertility rate [1].

Background of the study

In 1952, India started The National Family Planning Program to help people plan their families. The program aimed to reduce the number of births to a level that would be good for the country's economy. It also wanted to teach people about different ways to plan their families, like using contraception, and to help them feel comfortable with these methods [2]. In India, currently, there is a 9.4% unsatisfied demand for family planning. This means that a portion of individuals or couples who desire to use family planning methods are not able to access them. Of all the methods used for family planning, 56.5% are modern, while 66.7% include all methods, including traditional ones. Sikkim is the

second smallest state in India and has the lowest population, with just 610,577 inhabitants according to the 2011 census. In 2011, Sikkim's population growth rate was 12.89%, and its population accounted for only 0.05% of India's total population [3].

The right to family planning creates a responsibility for the government to make sure that both men and women possess even-handed access to a comprehensive assortment of contraceptive alternatives and services related to reproductive health. Additionally, it is crucial that correct information regarding Sexual and reproductive well-being is widely available [4]. Various interconnected elements influence the decision to utilize family planning techniques including

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education level, socio-economic position, marriage age, family size, number of children, and personal beliefs. In order to confront issues related to maternal and infant mortality, uncontrolled population growth, and other concerns, it is essential to encourage greater use of birth control methods [5]. Educating women and their partners on the appropriate application and advantages of current methods of contraception is essential in addressing the issue of a significant number of individuals having an unfulfilled demand for contraception. At the same time, it is crucial to focus on strengthening health systems to ensure the sustained delivery of high-quality family planning services [6]. Among the four districts in Sikkim, the highest percentage of current usage of any contraceptive method is observed in West District at 88.2%, followed by South District at 85% and North District at 75.7%. Conversely, the lowest usage of any contraceptive method is reported in East District at 54.3%.

Unintended pregnancy is a major issue that has medical, social, and economic implications. Approximately 50% of unintended pregnancies occur due to the lack of contraceptive use, while the other 50% are a result of inconsistent use or failure of contraceptive methods. There have been limited research studies on the use of video-assisted modules for educating people on contraceptive methods, and no such studies have been conducted in Sikkim. Given that video-assisted modules are highly effective tools for communication in the modern world, and can raise awareness about contraception, this study aims to increase awareness about contraception and gather people's perspectives on the subject [7].

Materials and Methods

Quantitative approach with True-Experimental Pre-test Post-test research design was used to assess the knowledge and attitude of the married eligible couples towards contraceptive methods. The study was conducted in villages of Gangtok District, East Sikkim in 2022. The cluster randomization technique was used to select each village under Gangtok District as a cluster from where the sample was collected. A total of 160 married eligible couples who fulfilled the inclusion criteria were selected for the study. The married eligible couples participating in reliability, pretesting, and pilot study were excluded. Self-structured questionnaire and a 5-point Likert Scale were used to assess the knowledge and attitude of married eligible couples toward contraceptive methods for which validity and reliability were established.

Tool I Consists of two sections, Section A consists of a Demographic proforma to collect the background information in relation to Age, Religion, Education, Monthly income, Occupation, Type of family, Number of children, heard of any method to prevent pregnancy, and Source of information. Section B consists of a Self-structured Knowledge questionnaire to identify knowledge of contraceptive methods consisting of the Meaning of family planning, types of contraceptive methods, advantages, and disadvantages of contraceptive methods.

Tool II consists of a 5-point Likert Scale on contraceptive methods consisting of 10 statements. The questionnaire and attitude scale were administered to 16 married eligible couples after obtaining informed consent from the married eligible couples to establish the reliability of the tool. The reliability of the tool was checked by the split-half technique and Karl Pearson correlation co-efficient method for the structured knowledge questionnaire and it was found to be $r=1$ and for the attitude rating scale, it was found to be $r=0.80$.

Results and Discussion

Section I: Findings related to Frequency and percentage distribution of Demographic variables among the married eligible

couples in the Experimental and Control groups (Table 1).

Section II: Description of the pre-test and post-test level of knowledge among the eligible couples in the Experimental group (Figure 1).

Section III: Description of the pre-test and post-test level of knowledge among the eligible couples in the Control group (Figure 2).

Section IV: Description of the pre-test and post-test level of attitude among the eligible couples in the Experimental group (Figure 3).

Section V: Description of the pre-test and post-test level of attitude among the eligible couples in the Control group (Figure 4).

Section VI: Effectiveness of Video-Assisted Teaching Module on knowledge and attitude regarding Contraceptive Methods among eligible couples (Table 2).

Section VII: Findings related to the association between the Pre-test knowledge and selected demographic variables. The study found that in the experimental group, the education level ($p=0.02$) and number of children ($p=0.0009$) of husbands were significantly associated with their pre-test knowledge scores. Among the wives in the experimental group, their age ($p=0.02$), number of children ($p=0.0009$), and source of information ($p=0.0007$) were significantly associated with their pre-test

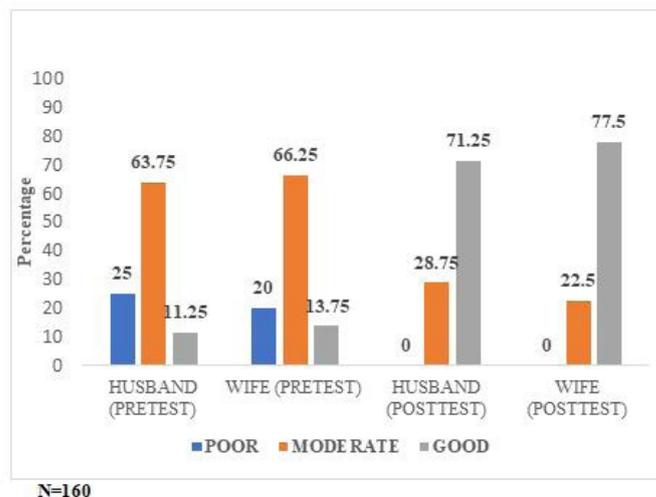


Figure 1: Bar Diagram Showing the Pre-test and Post-test Level of Knowledge Among the Eligible Couples in the Experimental Group.

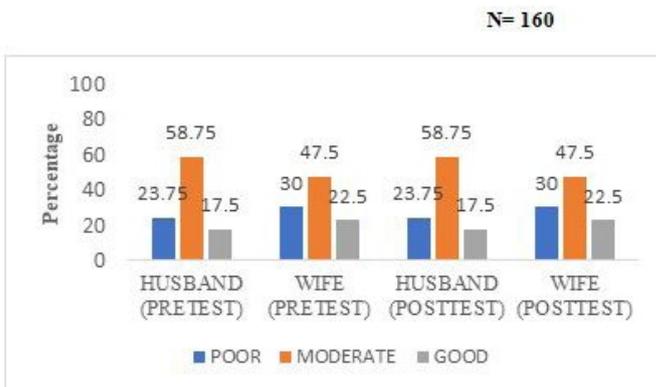


Figure 2: Bar Diagram Showing the Pre-test and Post-test Level of Knowledge Among the Eligible Couples in the Control Group.

Table 1: Description of Demographic Characteristics Among the Eligible Couples in the Experimental and Control Group.

Demographic Characteristics	Experimental group				Control group			
	Husband		Wife		Husband		Wife	
	f	%	F	%	F	%	F	%
Age in years	N=320							
21-30	18	22.5	38	47.5	22	27.5	46	57.5
31-40	18	22.5	22	27.5	20	25	28	35
41-50	44	55	20	25	38	47.5	06	7.5
Religion	N=320							
Hindu	25	31.25	25	31.25	28	35	28	35
Buddhist	24	30	24	30	22	27.5	22	27.5
Christian	22	27.5	22	27.5	23	28.75	23	28.75
Muslim	09	11.25	09	11.25	07	8.75	07	8.75
Education	N=320							
Primary education	21	26.25	32	40	22	27.5	38	47.5
Secondary education	21	26.25	18	22.5	30	37.5	26	32.5
Higher Secondary education & above	38	47.5	30	37.5	28	35	16	20
Monthly income	N=320							
Less than Rs 5000	06	7.5	12	15	05	6.25	12	15
Rs 5000 -10000	29	36.25	28	35	18	22.5	18	22.5
More than Rs 10000	45	56.25	40	50	57	71.25	50	62.5
Occupation	N=320							
Daily wagers	6	7.5	10	12.5	10	12.5	12	15
Business	25	31.25	18	22.5	19	23.75	24	30
Govt. Employee	22	27.5	28	35	29	36.25	20	25
Pvt. Employee	20	25	18	22.5	15	18.75	13	16.25
Unemployed/ Housewife	07	8.75	06	7.5	07	8.75	11	13.75
Type of family	n=160							
Joint family	f		%		f		%	
Nuclear family	39		48.75		36		45	
	41		51.25		44		55	
Number of children	n= 160							
0	8		10		10		12.5	
1	50		62.5		30		37.5	
2 and above	22		27.5		40		50.5	
Heard of any method to prevent pregnancy?	N= 320							
Demographic characteristics	Husband		Wife		Husband		Wife	
	f	%	f	%	f	%	f	%
Yes	80	100	80	100	80	100	80	100
No	0	0	0	0	0	0	0	0
Source of information	N=320							
Media	15	18.75	12	15	23	28.75	20	25
Friends	18	22.5	15	18.75	15	18.75	13	16.25
Source of information	N=320							
Media	15	18.75	12	15	23	28.75	20	25
Friends	18	22.5	15	18.75	15	18.75	13	16.25
Family	17	21.25	20	25	14	17.5	17	21.25
Health workers	30	37.5	33	41.25	28	35	30	37.5

knowledge scores. In the control group, pre-test knowledge scores were significantly associated with the age ($p=0.04$), occupation ($p=0.01$), and number of children ($p=0.02$) of husbands, while education ($p=0.0001$) was significantly associated with pre-test knowledge scores for wives.

Section VIII: Findings related to the association between the Pre-test attitude and selected demographic variables

Education ($p=0.01$) and source of information ($p=0.007$) of husbands were significantly associated with pre-test attitude scores. In contrast, age ($p=0.01$), education ($p=0.02$), and number of children ($p=0.04$) were significantly associated with pre-test attitude scores for wives in the control group.

Section IX: Findings related to the correlation between knowledge and attitude scores of the eligible couples.

The study examined the correlation between pre-test knowledge and attitude scores for both the experimental and control groups. In the experimental group, there was a low positive correlation ($r=0.25$) between pre-test knowledge and attitude scores among husbands, and a moderate positive correlation ($r=0.32$) among wives. In the control group, there was a strong positive correlation ($r=0.73$) between pre-test knowledge and attitude scores among husbands, and a similarly strong positive correlation ($r=0.79$) among wives (Table 3).

Table 2: Displays the Mean Values of Pre-Test and Post-Test Knowledge and Attitude Scores Among Husbands and Wives in the Experimental Group.

Knowledge On Contraceptive methods	Mean	Mean difference	df	SD	't' value	p-value
Husband						
Pre-test	8.08	6.08	158	1.51	25.29	<0.0001*
Post-test	14.16			1.53		
Wife						
Pre-test	8.12	5.88	158	1.68	24.04	<0.0001*
Post-test	14			1.40		
Attitude toward Contraceptive methods	Mean	Mean difference	Df	SD	't' Value	'P' Value
Husband						
Pre-test	22.41	14.26	158	3.82	23.73	<0.0001*
Post-test	36.67			3.78		
Wife						
Pre-test	22.07	14.21	158	3.74	23.36	0.009*
Post-test	36.28			3.95		

N= 160

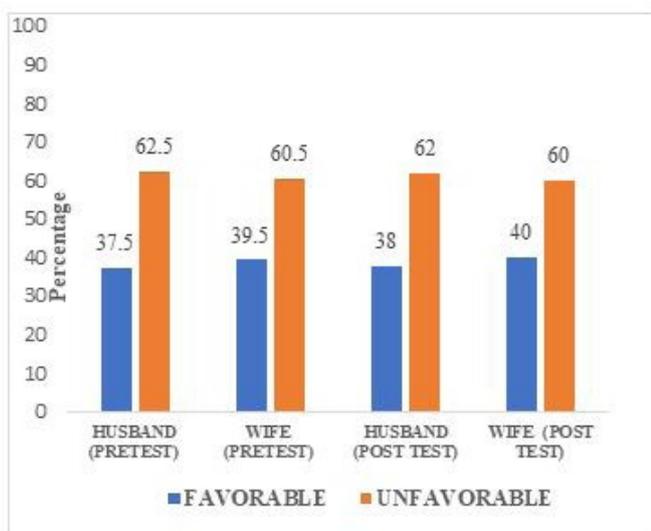


Figure 3: Bar Diagram Showing the Pre-test and post-test Level of Attitude Among the Eligible couples in the Experimental Group

N= 160

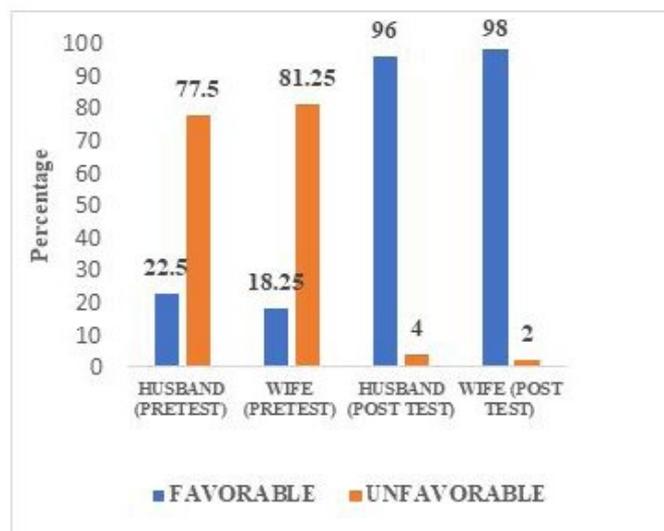


Figure 4: Bar Diagram Showing the Pre-test and Post-test Level of Attitude Among the Eligible Couples in the Control Group.

Table 3: Displays the Mean Values of Pre-Test and Post-Test Knowledge and Attitude Scores for Husbands and Wives in the Control Group.

Knowledge On Contraceptive methods	Mean	Mean difference	df	SD	't' value	p-value
Husband						
Pre-test	7.48	1.09	158	2.55	2.66	0.5
Post-test	8.57			1.63		
Wife						
Pre-test	7.96	0.04	158	2.52	2.10	0.5
Post-test	8			2.51		
Attitude toward Contraceptive methods	Mean	Mean difference	Df	SD	't' Value	'P' Value
Husband						
Pre-test	23.53	0.03	158	6.15	0.03	0.48
Post-test	23.56			6.46		
Wife						
Pre-test	23.83	0.13	158	6.46	1.10	0.13
Post-test	23.96			6.51		

Discussion in relation to other studies

Discussion of demographic characteristics of the eligible couples of Controls and Experimental groups in relation to other studies The present study found that only around 2% of husbands and 3% of wives

were unemployed in both groups, which is lower than the findings of a study conducted by K.R. Deepak Abhinash et al. (2021) who reported that out of 102 females, 84% were unemployed and out of 18 males, 39% were unemployed.

Discussion related to knowledge level among the eligible couples regarding contraceptive methods

The data used for the study was observed for the level of knowledge during the pre-test exhibited poor knowledge (48.75%) among husbands and poor knowledge (50%) among wives of both control and experimental group in relation to contraceptive methods. The study findings were supported by Mr. Devi Lal Jalwa et.al (2016) and had reported that the respondents had inadequate knowledge about post-partum intrauterine contraceptive devices.

Discussion related to attitude level among the eligible couples towards contraception

The level of attitude of the couples during the pre-test shows that 62.5% of couples in the control group and 79% of couples in the experimental group had unfavorable attitudes towards the contraceptive methods. Findings of the study supported by Soheila Ehsanpour (2010) who reported 61% of the respondents had undesirable attitudes towards contraceptive methods.

Discussion related to effectiveness of video-assisted teaching module on contraceptive methods.

The post-test level of knowledge shows that about 74% of couples in the experimental group had good knowledge compared to the control group (20%). The knowledge level improved in all aspects and was statistically found significant ($p < 0.000$). The findings of the study supported by Moinuddin Mansoori (2020) reported that the post-test knowledge level increased and was significant at 0.05 level.

Discussion related to the association between pretest knowledge level and attitude toward contraceptive methods and selected demographic variables

The pre-test knowledge score was significantly associated with demographic variables such as education level, occupation, number of children, and source of information. A study conducted by MV Smitha (2020) found that knowledge score was only associated with occupation ($p = 0.005$) 13, while J. Nagamala et al. [2] reported an association between knowledge and variables such as age, occupation, and duration of marriage.

Conclusion

The purpose of this study was to evaluate the effectiveness of a Video Assisted Teaching Module (VATM) on the knowledge and attitude of the eligible couples regarding contraceptive methods. The study found that the level of knowledge and attitude towards contraception was insufficient before the program. However, after the implementation of the VATM, there was a significant improvement in knowledge and positive attitude towards contraception among the experimental group. Thus, the VATM was effective in enhancing

the knowledge and attitude of the eligible couples. In summary, the study indicates that the use of the Video Assisted Teaching Module for couples was beneficial and can be applied in various settings, such as clinical or community areas, to improve knowledge and attitudes towards contraceptive methods.

Acknowledgement

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Ethical Clearance

Ethical permission was sought from the Institutional Review Committee of Sikkim Manipal University. Written consent was obtained from the respondent prior to data collection.

Source of Funding

Self

Conflicts of Interest

None

Financial Support

Not available

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