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Impact of a Video-Based Educational Program on Young Women's Knowledge, Attitude, and Practice Toward Chikungunya

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Abstract
The name "chikungunya" comes from a Makonde phrase that means "that which bends up," referring to the typical hunched posture brought on by excruciating arthritic pain. Women living in Kanagarapattu village, Chidambaram, participated in a study to assess the efficacy of a video-based education program on knowledge, attitude, and practice (KAP) addressing chikungunya. Using a convenience sampling technique, 100 young adult women were selected.In the pre-test, participants demonstrated limited knowledge, with a mean score of 0.52 (SD = 0.13). Following the video teaching programme, knowledge scores increased substantially to 0.87 (SD = 0.08) in post-test I and 0.93 (SD = 0.05) in post-test II. Attitude Rates, measured on a five-point Likert scale, improved from a pre-test mean of 3.82 (SD = 0.53) to 4.67 (SD = 0.21) in post-test I and 4.93 (SD = 0.08) in post-test II. Practice scores, assessed using a three-point Likert scale, rose from 2.43 (SD = 0.32) in the pre-test to 2.91 (SD = 0.11) in post-test I and 2.96 (SD = 0.05) in post-test II.These findings clearly indicate revealed young adult women's knowledge, attitudes, and preventative practices for chikungunya were greatly improved by the video education program.

Keywords: ***Chikungunya, Young adult women.***

1.Introduction
As a developing nation, India continues to bear a substantial burden of communicable diseases, particularly those linked to poor living conditions and inadequate environmental sanitation. Vector-borne diseases such as malaria, dengue, and filariasis have been persistent concerns, and since 2005, chikungunya has also re-emerged in the country. At the time of its resurgence, there was limited public awareness and inadequate household-level information regarding the nature of the illness, its debilitating symptoms, and the prolonged period of recovery(1). Thilak jayalath et al. (2012) a longitudinal cohort study of chikungunya to rule out the (outbreak) occurred in Sri Langa during the year of 2006. This community-based study found that among 199 families and 1,001 individuals in the village, 159 families (80%) and 513 individuals (51%) were affected. Of those infected, 237 (46%) were males, with the highest incidence occurring in the 40–50-year age group(2).A study was conducted to evaluate the effectiveness of a video-based teaching programme on chikungunya in improving the knowledge, attitude, and practice of women residing in Kanagarapattu village, Chidambaram(3).

2.Methodology
A quantitative approach was adopted for this study. A quasi-experimental one-group pre-test and post-test design was used to evaluate the effectiveness of the video teaching programme on chikungunya among young adult women residing in Kanagarapattu village, Chidambaram(4). The sample consisted of 100 young adult women selected through convenience sampling. The Institutional Human Research Ethics Committee granted ethical clearance, and the Kanagarapattu village leader formally granted authorization. The participants' levels of knowledge, attitude, and practice were assessed using a semi-structured questionnaire(5).

2.1 Objectives
- To assess the existing knowledge, attitude, and practice of young adult women regarding chikungunya.
- To assess the efficacy of a chikungunya video education program for young adult women residing in Kanagarapattu village(6).
- To examine the association between pre-test knowledge, attitude, and practice scores and selected demographic variables such as age, educational status, occupation, monthly family income, number of family members, and sources of information(7).

2.2 Hypotheses

H1: The video teaching programme on chikungunya will lead to a notable enhancement in the knowledge levels of young adult women(8).

H2: The video teaching programme on chikungunya will produce a significant improvement in the attitude scores of young adult women.

H3: The video teaching programme on chikungunya will result in a meaningful rise in the practice levels of young adult women.

2.3 Criteria for selection of sample

Inclusion Criteria

- Young adult women aged 18–35 years residing in Kanagarapattu village.
- Women who were willing to participate in the study.
- Women who were literate in Tamil.

Exclusion Criteria

- Women who were not available during the period of data collection.
- Women suffering from chronic illnesses.
- Women who were uncooperative or diagnosed with any mental illness(9).

2.4 Data Collection Procedure

- Ethical approval for the study was obtained from the Institutional Human Ethical Committee of RMMC. Data collection was carried out over a four-week period from 23.12.2015 to 24.01.2016 among young adult women residing in Kanagarapattu village who met the inclusion criteria. A total of 100 participants were selected using convenience sampling(10).
- Participants were made comfortable before the investigator introduced herself, acquired informed permission after outlining the study's goals. The pre-test was then administered using a semi-structured interview questionnaire to assess knowledge, a five-point Likert scale to measure attitude, and a three-point Likert scale to evaluate practice related to chikungunya(11). Completing the pre-test took approximately 15–20 minutes.
- Following the pre-test, a video teaching programme on chikungunya was delivered, and supplementary pamphlets were distributed. After seven days, Post-test I was conducted, followed by a repeat of the video teaching programme. Post-test II was conducted fourteen days after the initial pre-test.

3.Results

Paired t-tests were used to analyze the improvements in knowledge, attitude, and practice; the results demonstrated statistically significant differences at $p < 0.001$(12).

In the pre-test, 48% of participants had inadequate knowledge, 44% demonstrated moderately adequate knowledge, and only 8% showed adequate knowledge about chikungunya. In Post-test I, 86% of participants achieved adequate knowledge and 14% had moderately adequate knowledge. By Post-test II, 99% demonstrated adequate knowledge, with only 1% remaining in the moderately adequate category. These results reflect a marked and progressive improvement in knowledge following the video teaching programme, thereby supporting Hypothesis H1(13).The Kruskal Wallis test revealed a highly significant association ($p < 0.001$) between knowledge scores and the demographic factors family monthly income and source of information. No meaningful associations were observed with age, educational level, occupation, family structure, religion, or type of housing. For attitude scores, a significant link ($p < 0.001$) emerged only with occupation, whereas all other demographic characteristics age, education, type of family, monthly income, religion, type of house, and information sources showed no significant influence. Regarding practice scores, the analysis indicated a significant relationship ($p < 0.001$) solely with education(14). All other variables, including age, occupation, family type, family income, religion, housing type, and information source, did not exhibit any statistically significant association.

TABLE 1 Association Between the Mean and Standard Deviation of Demographic Variables and Knowledge on Chikungunya Among Young Adult Women

N=100

S.No	Demographic variables	No	Mean	SD	Kruskal- wallis test	'p' value
1.	**Age** a)18-25 years b)25-30 years c)30-35 years	 55 39 6	 O.51 0.54 0.56	 0.12 0.13 0.19	2.87	0.23 (NS)
2.	**Learning** a) Illiterate a) Elementary schooling c) Higher secondary d) Graduate	 3 36 40 21	 0.53 0.52 0.52 0.56	 0.20 0.13 0.11 0.15	0.64	0.88 (NS)
3.	**Occupation** a)Unemployment b)House wife c) Coolie d)Self employment e)Private and government job	 23 57 7 3 10	 0.54 0.53 0.52 0.54 0.46	 0.13 0.14 0.90 0.90 0.13	3.98	0.40 (NS)
4.	**Sort of family** a) Nuclear family b) Family units	 81 19	 0.51 0.58	 0.13 0.13	4.14	0.04* (S)
5.	**Monthly income of the family** a) less than Rs. 2000; b) between R. 2001 and 4000 c) between Rs. 4001 and 6000; d) greater than Rs. 6001	 15 51 20 14	 0.59 0.49 0.59 0.50	 0.12 0.12 0.13 0.12	12.36	0.06* (S)
6.	**Religion** a)Hindu b)Christian c)Muslims d)Others	93 7	0.52 0.52	0.13 0.11	0.00	0.93 (NS)
7.	**Type of house** a)Thatched house b)Tilled house c)Terraced house	 42 39 19	 0.52 0.52 0.52	 0.10 0.14 0.16	0.92	0.62 (NS)
8.	**Source of information** a)Media b)Friends c)Health personal d)Not acquired information	 21 13 18 48	 0.51 0.62 0.60 0.48	 0.10 0.15 0.14 0.11	15.65	0.00*** (S)

S=Significant, NS-Non=Significant

TABLE 2 Comparison of the Mean and Standard Deviation of Knowledge, Attitude, and Practice on Chikungunya Among Young Adult Women in the Pre-test, Post-test I, and Post-test II

Variables	Pretest		Posttest I		Posttest II		One way ANOVA repeated measures	
	Mean	SD	Mean	SD	Mean	SD		
knowledge	0.52	0.13	0.87	0.08	0.93	0.05	521.73	0.001 (s)
Attitude	3.82	0.53	4.67	0.21	4.93	0.08	328.51	0.001 (s)
Practice	2.43	0.32	2.91	0.11	2.96	0.05	236.83	0.001 (s)

S=Significant

The table presents the mean knowledge scores for the pre-test, Post-test I, and Post-test II as 0.52, 0.87, and 0.93 respectively. The corresponding mean attitude scores were 3.82, 4.67, and 4.93, while the mean practice scores were 2.43, 2.91, and 2.96 across the same three phases. A one-way repeated measures ANOVA was used to compare the three sets of mean scores(15). The highly significants p value (< 0.001) indicates that the mean knowledge, attitude, and practice scores differed substantially across the pre-test, post-test I, and post-test II results showed consistent improvement across all three domains following the intervention. Furthermore, the higher scores in Post-test II compared with Post-test I indicate continued progress over time.Therefore, the hypotheses H1, H2, and H3 were accepted.

4.Conclusion

The findings indicate that, prior to the intervention, young adult women exhibited inadequate knowledge, unfavorable attitudes, and poor practices related to chikungunya and its preventive measures. Following the video teaching programme, participants showed a substantial improvement in their knowledge, attitude, and practice scores, demonstrating that the intervention was highly effective in enhancing awareness and encouraging improved preventive behaviors among young adult women.

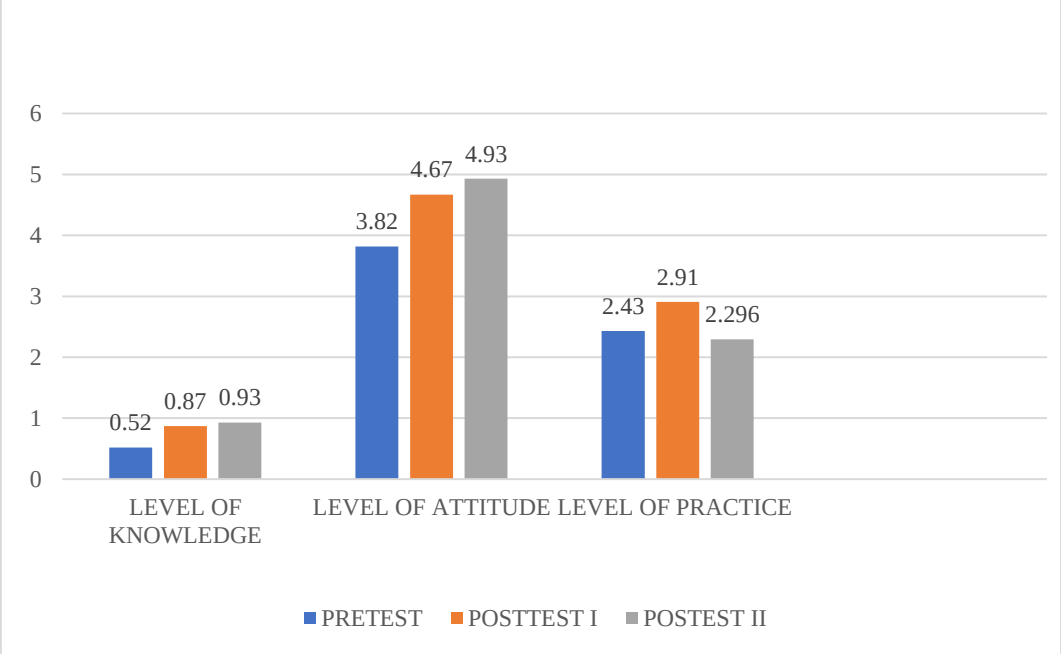

FIGURE 1 Knowledge, Attitude, Practice Scores

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Conflicts of interest

The authors have no conflicts of interest to declare

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