

# Video Assisted Learning Enhance the Knowledge of WIFS Programme among Adolescents

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**Abstract:** *Introduction:* Iron deficiency anaemia is the most common nutritional deficiency anaemias in the country among adolescent girls and women of childbearing age. In 2013, to combat anaemia in adolescents, Government of India implemented "Weekly Iron and Folic acid Supplementation (WIFS)". *Aim:* To assess the effectiveness of video assisted learning on WIFS Programme among adolescents in a selected school at Chennai. *Method:* A cross-sectional study consists of a pre-test analysis followed by a video assisted learning intervention and post-test analysis after 1 week were done by administering a self-structured questionnaire. *Results:* There were 74 participants in the study and the demographic profile was obtained. The level of knowledge on the post-test based on knowledge assessment score (mean - 25.81±3.78) was significantly higher than the level of knowledge on the pre-test based on knowledge assessment score (mean - 13.35±3.88). The demographic variable of taking regular tablets ( $F=3.090$ ,  $p=0.042$ ) which are provided from schools by WIFS programme had shown statistically significant association with mean differed score of knowledge on WIFS Programme among adolescents. *Conclusion:* The post - test analysis was done after a video assisted learning tool, it is evident that the students learnt better and showed improvement in knowledge on WIFS Programme following an intervention.

**Keywords:** WIFS, Adolescent, video assisted learning

## 1. Introduction

Anaemia is a common medical disorder which is the most prevalent nutritional problem and in worldwide it is mainly caused due to nutritional deficiency. Of which the most common is the iron deficiency anaemia [1]. In 2019, global anaemia prevalence was 29.9% in women of reproductive age, equivalent to over half a billion women aged 15-49 years. As per National Family Health Survey-5 conducted in 2019, in India, the prevalence of anaemia was 59.1% among girls aged between 15 and 19 years. In Tamil Nadu, the prevalence of anaemia was 52.9% among girls aged between 15 and 19 years. In Chennai, the prevalence of anaemia among adolescent school going children was 53.9% in 2018 [2]. In 2013, to combat anaemia in adolescents, Government of India implemented 'Weekly Iron and Folic acid Supplementation (WIFS)'. Adolescents (girls and boys) in class VI to XII, enrolled in government/municipal schools were covered. School dropouts were covered through Anganwadi centres (AWC) across all states in India [3]. Studies have already proven the efficacy of weekly WIFS over daily iron supplementation in preventing anaemia. Very few studies had been conducted in various parts of India related to awareness studies on WIFS programme [4-10]. No studies on the knowledge on WIFS programme based on pre-test and post-test analysis has been reported. So, the aim of our study is to assess the effectiveness of video assisted learning on WIFS Programme among adolescents in a selected school at Chennai.

## 2. Materials and Methods

### 2.1 Study population

A formal permission was obtained from the authorities of Headmaster in Ambattur Municipal High School to conduct data collection. An oral consent was obtained from the students, and they were clearly explained about the study and its purpose. The study was conducted among girls at School

in Chennai. The confidentiality of the identity and response were maintained. A non-probability convenient sampling technique was used to select the samples. 74 students were present on that day, and they participated in the study.

### 2.2 Study tools

#### 1) Self – structured questionnaire.

The self-structured questionnaire was prepared in two parts. Part – 1 consisted of the demographic variables of the adolescents which contained age, attained menarche, if yes age at menarche, Education of the mother, Education of the father, Income of the family, Type of the family, Religion, Number of siblings, Dietary habits and Taking tablets regularly that are provided from the selected school in Chennai. Part-2 consisted of 30 questions to assess the knowledge on WIFS Programme.

#### 2) Video-assisted learning tool.

A video was prepared which explained the Iron deficiency anaemia and all the details of WIFS Programme in India.

### 2.3 Methods

The students were given with the questionnaire and both the demographic details and knowledge on WIFS were assessed without any intervention. The video was projected along with teaching was done for WIFS programme. Seven days later the same set of questionnaire was given and the knowledge gain was assessed. The knowledge was interpreted based on the score they got <50% as inadequate knowledge, 51% - 75% moderately adequately knowledge and 76%-100% as adequate knowledge.

### 2.4 Data Analysis

Frequency and percentage distribution were used to analyse the demographic profile of respondents and respondents pretest and post-test level of knowledge about WIFS Programme. Paired t – test analysis was performed to assess

the effectiveness of video assisted learning on WIFS Programme among adolescents. Unpaired t - test was performed to assess the association with mean differed score of knowledge on WIFS Programme among adolescents.

### 3. Results

#### Frequency and percentage distribution of demographic variables of adolescents:

Majority of the adolescents, 38 (51.3%) were aged between 14 – 15 years, 29 girls (39.1%) had attained menarche and 22 (29.7%) were aged below 13 years at the time of menarche, 42 (56.7%) of mothers were illiterates, 34 (45.9%) of fathers were educated up to 10th standard, 24 (32.4%) had family income of Rs.10,001 – Rs.15,000 per month, 40 ( 54.1%) belonged to nuclear family, 70 (94.6%) were Hindus, 44 (59.5%) had one sibling, 58 (78.3%) were non-vegetarian and 68 (91.8%) were taking tablets regularly that are provided from schools.

#### Pre-test and post-test level of knowledge regarding WIFS programme among adolescents:

In the pre - test, 56 (75.67%) had inadequate knowledge and 18 (24.32%) had moderately adequate knowledge whereas in the post test after the intervention, 62 (83.78%) had adequate knowledge, 10 (13.51%) had moderately adequate knowledge and 2 (2.70%) had inadequate knowledge (Table 1).

N = 74

Level of Knowledge	Pretest		Post Test	
	F	%	F	%
Inadequate ( $\leq 50\%$ )	56	75.68	2	2.70
Moderately Adequate (51 – 75%)	18	24.32	10	13.51
Adequate ( $>75\%$ )	-	-	62	83.79

#### Effectiveness of video assisted learning on WIFS programme among adolescents.

The pretest mean score of knowledge was  $13.35 \pm 3.88$  and the post-test mean score was  $25.81 \pm 3.78$ . The mean difference score of knowledge was 12.46. The mean improvement percentage was 41.5%. The calculated paired 't' test value of  $t=15.031$  was found to be statistically significant at  $p<0.001$  level. This clearly infers that there was significant improvement in the post test level of knowledge after the administration of Video Assisted Learning on WIFS Programme among the adolescents (Table 2).

N = 74

Test	Mean	S.D	Mean Difference & %	Paired 't' test Value
Pretest	13.35	3.88	12.46 (41.5%)	$t=15.031$ $p=0.0001, S^{***}$
Post Test	25.81	3.78		

\*\*\* $p<0.001$ , S – Significant, N.S – Not Significant

#### Association of mean differed score of knowledge on WIFS Programme among adolescents with selected demographic variables

The demographic variable of taking regular tablets ( $F=3.090$ ,  $p=0.042$ ) which are provided from schools by WIFS programme had shown statistically significant association with mean differed score of knowledge on WIFS Programme among adolescents at  $p<0.05$  level and the other demographic variables had not shown statistically significant association

with mean differed score of knowledge on WIFS Programme among adolescents.

### 4. Discussion

Various studies were conducted for assessing the knowledge of anaemia and WIFS programme implementation [4-12]. The studies also were conducted for video assisted learning based on pre-test and post-test analysis on fire safety [13], hazards of plastic usage [14], First aid management [15] and oral hygiene among children [16]. The present study is the first to assess the knowledge on WIFS programme based on pre-test and post-test analysis with an intervention using a video assisted learning tool.

The level of knowledge of WIFS programme assessed among the 74 students participated in the study in the pretest, 56 (75.67%) had inadequate knowledge and 18 (24.32%) had moderately adequate knowledge whereas in the post test after the intervention, 62 (83.78%) had adequate knowledge, 10 (13.51%) had moderately adequate knowledge and 2 (2.70%) had inadequate knowledge. The pre - test mean score of knowledge was 13.35 with the SD of 3.88 and the post-test mean score was 25.81 with the SD of 3.78. The mean difference score of knowledge was 12.46. The mean improvement percentage was 41.5%. The pre-test mean score of knowledge was  $13.35 \pm 3.88$  and the post-test mean score was  $25.81 \pm 3.78$ . The mean difference score of knowledge was 12.46. The mean improvement percentage was 41.5%. The calculated paired 't' test value of  $t=15.031$  was found to be statistically significant at  $p<0.001$  level. This clearly infers that there was significant improvement in the post test level of knowledge after the administration of Video Assisted Learning on WIFS Programme among the adolescents. The studies on other parameters based on pretest and post-test assessment were also showed similar results as the present study [13-16].

The demographic variable of regular intake of tablets which are provided from schools by WIFS ( $F=3.090$ ,  $p=0.042$ ) had shown statistically significant association with mean differed score of knowledge on WIFS Programme among adolescents at  $p<0.05$  level and the other demographic variables had not shown statistically significant association with mean differed score of knowledge on WIFS Programme among adolescents. It can be inferred that the students who take iron tablets regularly knows better Knowledge on Anaemia. Thus, this study insists the importance of WIFS programme implementation and regular follow-up. However, **Moses Rathnakumar et al., 2020** found no significant association was found between any demographic variables in his study on fire safety measures wherein the study must not have any variables related to the study concept [13].

This study was limited to a selected school in Chennai so that findings cannot be generalized. The study was also limited to only the school going group, the beneficiary of the programme also includes non-school going group, so the effectiveness of the learning in the group cannot be generalized in the awareness of WIFS programme.

## 5. Conclusion

The post - test analysis was done after a video assisted learning tool, it is evident that the students learnt better and showed improvement in knowledge on WIFS Programme following an intervention.

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