

**TO EVALUATE THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING ON KNOWLEDGE REGARDING ADOLESCENT FRIENDLY HEALTH CLINIC SERVICES AND THEIR UTILIZATION AMONG GIRLS STUDYING AT SELECTED HIGHER SECONDARY SCHOOL, BENGALURU RURAL DISTRICT**

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### ABSTRACT

India has the largest population of adolescents in the world being home to 243 million individuals aged 10-19 years. Adolescents are at risk of Iron deficiency anemia due to accelerated increase in requirements of iron, poor dietary intake of iron, high rate of infection and worm infestation as well as the social norm of early marriage and teenage pregnancy. But most of the adolescents are not comfortable with the services provided at regular health settings due to lack of privacy, support and guidance. Hence the focus of this study was to evaluate the effectiveness of Video assisted teaching on knowledge regarding adolescent friendly health clinic services and their utilization among adolescent girls at selected higher secondary school, Bengaluru rural district, Karnataka.

**KEYWORDS:** Knowledge; Adolescent Girls; Adolescent friendly Health Services; Video Assisted teaching programme.

### OBJECTIVES

1. To assess the existing knowledge regarding Adolescent Friendly Health Clinic Services and their Utilization among Girls Studying at selected Higher Secondary School, Bengaluru Rural District.
2. To evaluate the effectiveness of video assisted teaching on knowledge regarding Adolescent Friendly Health Clinic Services and their Utilization among Girls Studying at selected Higher Secondary School, Bengaluru Rural District.
3. To find an association between the pre-test knowledge scores regarding Adolescent Friendly Health Clinic Services and their Utilization among Girls Studying at selected Higher Secondary School and their selected Sociodemographic variables.

### HYPOTHESIS

**H1:** There will be a significant enhancement between mean pre-test and post-test knowledge scores regarding Adolescent Friendly Health Clinic Services and their utilization among girls studying at selected Higher Secondary School.

**H2:** There will be significant association between level of knowledge regarding Adolescent Friendly Health Clinic Services and their Utilization among Girls Studying at selected Higher Secondary School and selected Socio demographic variables.

### INTRODUCTION

*"All of us, at some moment, have had a vision of our existence as something unique, untransferable and very precious. this revelation almost always takes place during adolescence".*

- Octavio paz

Adolescents account for almost 21% of India's population. The world is home to 1.2 billion individuals aged 10-19 years. Adolescence or the second decade of life, is a period in which an individual undergoes major physical and psychological changes. It is a phase in an individual's life rather than a fixed time period a phase in which an individual is no longer a child but is not yet an adult.<sup>[1]</sup>

The Ministry of Health and family welfare is implementing various schemes and programmes and National initiatives to provide universal access to the quality health care. To achieve optimum health and development of adolescent population, 'Adolescent health initiative package has been provided under NRHM/RCH II during 2003-08 through Adolescent Friendly Health Clinic.<sup>[2]</sup>

Adolescent health programme: taking cognizance of the diverse nature of adolescent health needs, a

comprehensive adolescent health strategy has been developed. At present 6,302 Adolescent Friendly Health Clinic are functional across the country providing services information and commodities to more than 2.5 million adolescents. The Ministry of Health and family welfare has launched Menstrual hygiene scheme for promotion of menstrual hygiene among adolescent girls in the age group of 10-19 years. This programme aims at ensuring that girls have adequate knowledge and information about menstrual hygiene and have access to high quality Sanitary Napkins along with safe disposal mechanisms.<sup>[3]</sup>

Through Adolescent Friendly Health Clinic services routine check-up at primary, secondary and tertiary levels of care provided on fixed day and fixed time clinics services every Thursday and Saturday from 3 to 5 pm. Counseling services for adolescent on important health areas such as nutrition, puberty, menstrual disorders, personal hygiene, menstrual hygiene, use of sanitary pads, use of contraceptives, sexual concerns, RTI/STI, depression, sexual abuse, gender violence, substance misuse, promoting healthy behavior to prevent non-communicable diseases, prevention and contraception and delaying marriage and child bearing are being provided through recruitment and training of dedicated counselors. Commodities available at Adolescent Friendly Health Clinic are weekly iron and folic acid supplementation and albendazole, sanitary pads, contraceptives and medicines.<sup>[4]</sup>

#### NEED FOR STUDY

*Snow and adolescence are the only problems that disappear if you ignore them long enough.*

*-Earl Wilson*

Adolescents are at risk of Iron deficiency anemia due to accelerated increase in requirements of iron, poor dietary intake of iron, high rate of infection and worm infestation as well as the social norm of early marriage and teenage pregnancy. Globally, anemia affects 1.62 billion people, which corresponds to 24.8% of the population. The highest prevalence is in preschool-age children, and the lowest prevalence is in men. However, the population group with the greatest number of individuals affected is non-pregnant women. India stands low on the list of nations dealing with problems arising out of iron deficiency. It is 170th among 180 countries ranked for anemia among women, according to global nutrition report 2016. In India the prevalence of anemia among adolescent girls were 56% and these amounts to an average 64 million girls at any point in time.<sup>[5]</sup>

A cross sectional survey of 1314 adolescent girls in 2015 was conducted on prevalence of anemia among adolescent girls in Bangladesh. Over all 51.6% girls were suffering from any form of anemia. While 46% were mildly, 5.4% were moderately anemic, only 0.2% were severely anemic. Higher number of adolescent girls are still suffering from anemia in Bangladesh and non-

pregnant adolescents contributed the most. Therefore, immediate long term and sustainable public health intervention would require to combat the situation.<sup>[6]</sup>

Every third young woman in the developing countries excluding China continues to marry as a child, that is before age 18. Recent studies reiterate the adverse health consequences of early marriage among young women and their children even after a host of confounding factors are controlled. The current evidence is conclusive with regard to many indicators: unintended pregnancy, pregnancy-related complications, preterm delivery, delivery of low birth weight babies, fetal mortality and violence within marriage. However, findings present a mixed picture with regard to many other indicators, the risk of HIV and the risk of neonatal, infant and early childhood mortality.<sup>[7]</sup>

Over past decade, India has successfully reduced the proportion of pregnancy between 15-19 years to half i.e. 16% during NFHS 3 in 2005-06 and 7.9% during NFHS 4 in 2015-16. Still the estimation by United Nations population fund UNFPA runs to 11.8 million teenage pregnancy for the country.<sup>[8]</sup>

One in every 1000 youth is HIV positive. Many adolescents are in denial, afraid, misinformed or lack familial or social support, therefore, this age group may benefit from counseling services and supportive care. Providing care to adolescents is a multifaceted process in that no two adolescents are the same, but they all require sensitive, flexible, culturally and developmentally appropriate care.<sup>[9]</sup>

Hence by considering the above statistical significant data and Researcher being a staff nurse working in Government General Hospital Nelamangala, participating in Sneha clinic every Thursday and Saturday found underutilization of the Sneha clinic services, Hence the investigator felt the need to educate girls regarding adolescent friendly health clinic to facilitate better utilization of services.

#### REVIEW OF LITERATURE

Literature review related to Nutrition and Iron deficiency anaemia.

A cross-sectional study was conducted to assess the nutrient intake of adolescent girls in rural Rajasthan. Using cluster sampling method in 18 villages of Jaipur district was selected for 941 adolescent girls of age 10-18 year. Anthropometric measurements for height, weight, mid-upper arm circumference, triceps skin fold and chest circumference were measured: 24-hour diet recall method to assess nutrient intake. The diet was deficient in calories by 26% to 36%. About 73.7% of subjects suffered from anemia and 43.6% had signs of vitamin B complex deficiency. Therefore, intervention strategies are needed to improve the dietary intake of adolescent girls so that their requirements are met.<sup>[10]</sup>

Literature review related to Menstrual hygiene, Early marriage and teenage pregnancy. A school based descriptive cross-sectional study on menstrual hygiene and perceived morbidity among adolescent girls in Puducherry, Union Territory India was conducted in 2015 among 252 adolescent school girls in the age group of 12-18 years using multistage random sampling technique. 51.7% of respondents were not aware of menstruation before attaining menarche. 71.5% & 61.2% were not known about the cause and source of the menstrual bleeding respectively. 78.1% used only sanitary pads whereas 21.9% used both old clothes and sanitary pads as the absorbents. Unsatisfactory cleaning of the external genitalia was practiced by 12% of respondents. Statistically significant association was found between perceived reproductive morbidity and poor menstrual hygiene practices. About 88.4% of the study population reported any one of the reproductive morbidity and only 37.4% sought for medical treatment from a health facility. The present study has underscored the necessity of adolescent girls to have adequate and precise knowledge about menstruation before menarche. Proper menstrual hygiene practices which could be imparted through appropriate intervention at earlier stages of life can prevent the girls and women from suffering reproductive morbidities.<sup>[11]</sup>

A study was conducted to evaluate the quality of Adolescent reproductive and sexual health (ARSH) services; assess if these services met the National Standards of care and to utilize periodic program improvement recommendations through the WHO - quality assessment (QA) tools. Seven standards of care addressing provision of quality ARSH services (Standard I-IV); demand generation for these services (V-VI); and management information system (Standard VII) were assessed using WHO-QA tools for five years. Results revealed that Periodic interventions resulted in improving the average facility score from 27% to 83% and overall standards score from 28% to 81% at baseline and endline survey respectively. The average scores for Standards I-IV improved from 43% to 86%; for standards V-VI from 3% to 66% while for standard VII from 16% to 92% at baseline and end line survey respectively. Study concludes that an appropriate QA and periodic evidence-informed program inputs improved the quality and utilization of ARSH services.<sup>[12]</sup>

## METHODOLOGY

### VARIABLES

- **Independent variable:** Video assisted teaching on knowledge regarding adolescent friendly health clinic services and their utilization.
- **Dependent variable:** knowledge of girls studying at selected higher secondary school, regarding adolescent friendly health clinic services and their utilization.
- **Demographic variables:** Age, religion, Type of Family, Type of diet, Educational status of the mother, Monthly income of the family, Occupation of the mother, Source of information.

**Population** - adolescent girls studying in selected higher secondary school of Bengaluru rural district.

**Sample** - adolescent girls studying in selected higher secondary school of Bengaluru rural district.

### Sample size estimation

The sample size was calculated based on comparison of mean with standard deviation (4.83) of pilot study.

The sample size was estimated using the formula

$$n = z^2 \frac{\sigma^2}{d^2}$$

Where, n =

required sample size

z= standard table value for 95% confidence interval (1.96)

$\sigma$  = standard deviation (4.83)

d = precision (1.4)

$$n = (1.96)^2 \times (4.83)^2$$

$$(1.4)^2$$

$$n = 45.7$$

**Sampling Technique** - Simple random sampling technique Criteria for selection of samples.

### Inclusion Criteria

1. Girls those who are present during the time of data collection.
2. Girls who are willing to participate in the study.

### Exclusion Criteria

1. Adolescent girls who are sick during the time of data collection.

### Data Collection Tool

A structured knowledge questionnaire is used.

Part - I: Demographic Data

Part - II: Knowledge questionnaires 30 items

### Data Collection Procedure

The data collection was done for 4 weeks in Higher Secondary School in Bengaluru rural district. A formal written permission was obtained from the Principal, Sunrise English School, Bengaluru rural district and data collected within a given period from 15-03-2019 to 15-04-2019. Data were collected from 50 adolescent girls who fulfilled the inclusion and exclusion criteria.

### Analysis of Data

The following plan was developed for data analysis. Descriptive statistics such as frequency and percentage to describe the demographic characteristics of the participants; mean, mean percentage and standard deviation are used to describe the knowledge of adolescent girls regarding adolescent friendly health clinic services and their utilization. Inferential statistical methods like Paired 't' test is used to compare the knowledge level of adolescent girls and Chi-square ( $\chi^2$ ) test are used to find out the association between selected demographic variables and knowledge level of adolescent girls.

**RESULTS**

**SECTION – I**

**DEMOGRAPHIC CHARACTERISTICS OF ADOLESCENT GIRLS**

**Table 1: Frequency and Percentage Distribution of adolescent girls according to age.**

Age	Frequency	Percentage
14-15years	17	34.0
5-16years	23	46.0
6-17years	10	20.0
<b>Total</b>	<b>50</b>	<b>100</b>

N = 50

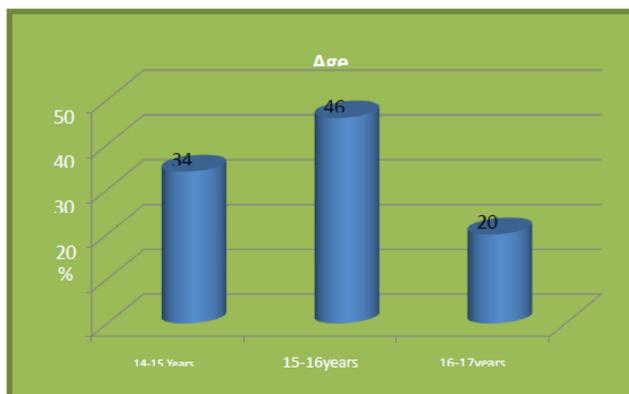


Table 1: Depicts that 46% of subjects were in the age group of 15-16 years, 34% of subjects were in the age group of 14-15 years and remaining 20% of the subjects were aged 16-17 years.

Section II: Knowledge level of adolescent girls Regarding the adolescent friendly health clinic Services and their utilization.

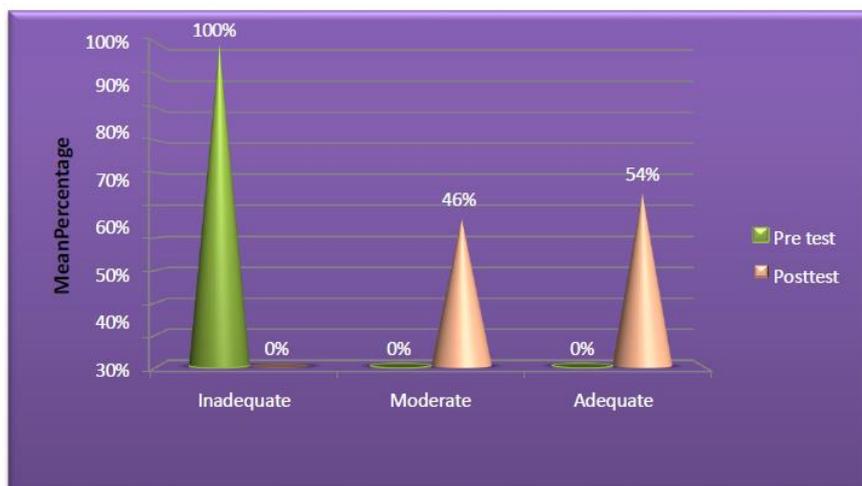
**Table 2: Overall pretest and post test knowledge scores of the adolescent girls.**

Knowledge level	Pretest		Posttest	
	Frequency	%	Frequency	%
Inadequate	50	100	0	0
Moderate	0	0	23	46
Adequate	0	0	27	54
<b>Total</b>	<b>50</b>	<b>100</b>	<b>50</b>	<b>100</b>

N = 50

Table2: Depicts that all 100% of the adolescent girls had inadequate knowledge in the pretest. After administration of video assisted teaching 54% of the subjects had

adequate knowledge, 46% had moderate knowledge regarding adolescent friendly health clinic services and their utilization in the post test.



## SECTION II: COMPARISON OF THE KNOWLEDGE LEVEL OF ADOLESCENT GIRLS

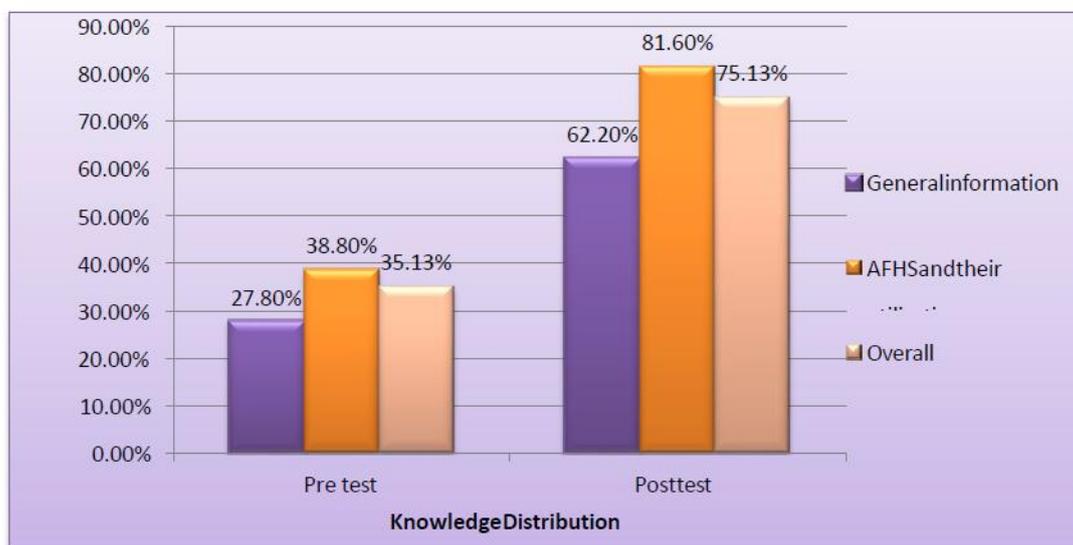
**Table 3: Comparison of pre test and post test knowledge scores of adolescent girls.**

Sl No	Knowledge aspects	Max score	Pretest		Posttest		Mean difference	t value	Inference
			mean	SD	mean	SD			
1	General information on puberty and adolescence and adolescent problems	08	2.78	1.20	6.22	1.329	3.44	15.654*	S
2	Knowledge on adolescent friendly health service clinics and their utilization	22	7.76	1.954	16.32	3.191	8.560	18.942*	S
Overall knowledge		30	10.54	1.951	22.54	3.632	12.0	24.089*	S

N = 50

From the table 3 it is evident that the obtained "t" value 24.089 is greater than the table value at the degrees of freedom 49 at 0.01 level of significance. Therefore, "t" value is found to be significant. Hence it is inferred that

there is significant difference between the pretest and post test knowledge scores of adolescent girls regarding the adolescent friendly health clinic services and their utilization.



## SECTION III: ASSOCIATION OF THE PRE TEST KNOWLEDGE SCORES OF ADOLESCENT GIRLS WITH THE DEMOGRAPHIC VARIABLES

It shows  $\chi^2$  value computed between the pre test knowledge level of adolescent girls on adolescent friendly health clinic services and their utilization and selected demographic variables. Variables such as age, education of the mother and family income were significant at 0.05 level. Thus it can be inferred that there is a significant association between knowledge level of the adolescent girls and selected variables. Therefore the hypothesis stated there will be significant association between knowledge scores and demographic variables is accepted.

### MAJOR FINDINGS OF THE STUDY

The overall analysis of level of knowledge of adolescent girls regarding adolescent friendly health clinic services and their utilization showed that mean knowledge scores of the subjects at pre-test were 10.54 (35.13%) with standard deviation 1.951 found to be inadequate knowledge regarding adolescent friendly health clinic

services and their utilization. After administration of Video assisted teaching mean knowledge scores of the subjects was 22.54 (75.13%) with standard deviation 3.632 found to be improvement in the level of knowledge among adolescent girls. All 100% of the adolescent girls had inadequate knowledge in the pre-test. After administration of video assisted teaching 54% of the subjects had adequate knowledge, 46% had moderate knowledge regarding adolescent friendly health clinic services and their utilization in the post test.

### INTERPRETATION AND CONCLUSION

Findings of the study show that there was a significant difference in pre-test and post-test level of knowledge of adolescent girls. From this it is concluded that the Video assisted teaching is effective in improving the level of knowledge of adolescent girls. And there was a significant association between level of knowledge of adolescent girls and selected demographic variables such as age, education of the mother and family income.

## DISCUSSION

The present study was conducted to evaluate the effectiveness of video assisted teaching on knowledge regarding adolescent friendly health clinic services and their utilization among adolescent girls in Sunrise English School, Bengaluru rural district. In order to achieve the objectives, an experimental research approach and preexperimental design was adopted and simple random sampling technique was used to select the samples.

The study was conducted over a period of 4 weeks from 15-03-2019 to 15-04-2019. The data were collected from 50 adolescent girls studying in Higher Secondary Schools in Bengaluru rural district, by using the structured questionnaires followed by administration of video assisted teaching. After 7 days post test was conducted.

## IMPLICATIONS OF THE STUDY

The findings of the study can be used in the following areas of nursing profession.

### 1. Nursing Practice

Nurses are the key persons of the health team, who play a major role in health promotion and maintenance. The nursing personnel need to prepare instructional materials and teaching programme which should be simple, clear and understandable that can be explained to other family members. Health teaching is an integral part of health and family welfare services. The present study emphasizes the preparation and utilization of video assisted teaching programme for adolescent girls regarding the adolescent friendly health clinic services and their utilization.

### 2. Nursing Education

As a nurse educator, there are abundant opportunities for nursing professionals to educate the adolescent girls as well as their family members regarding adolescent friendly health clinic services and their utilization. The study emphasizes significance of short term in-service education programmes for nurses regarding adolescent.

## LIMITATIONS OF THE STUDY

Only knowledge was considered in the present study. The study was conducted in one area, which restricts the generalization.

## RECOMMENDATIONS

On the basis of the findings of the study following recommendations have been made: A similar study can be replicated on large sample to generalize the findings. A similar study can be conducted in different setting. A study can be conducted to assess the effectiveness of innovative teaching methods. Comparative study can be conducted in urban and rural areas. A study can be conducted to know the existing role of the nursing personnel in the Adolescent friendly health clinics. A study can be conducted to involve male and it may be male oriented.

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