



A Study To Assess The Effectiveness Of Video Assisted Teaching Programme On Knowledge And Attitude Regarding Early Identification And Management Of Polycystic Ovarian Syndrome Among Adolescent Girls In Selected Nursing Colleges Of Udupi District,

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ABSTRACT

Adolescence is a critical stage of growth and development characterized by significant physical, psychological, and hormonal changes. Polycystic Ovarian Syndrome is one of the most common endocrine disorders affecting women of reproductive age and is increasingly observed among adolescent girls. Lack of awareness regarding early identification and management of Polycystic Ovarian Syndrome can lead to complications such as menstrual irregularities, infertility, obesity, and metabolic disorders.

The present study aimed to assess the effectiveness of a **Video Assisted Teaching Programme (VATP)** on knowledge and attitude regarding early identification and management of Polycystic Ovarian Syndrome among adolescent girls. A **pre-experimental one group pre-test post-test design** was adopted. A total of **60 adolescent girls** studying in 1st year General Nursing and Midwifery (GNM) and 1st year B.Sc Nursing were selected using non-probability convenience sampling from a selected **nursing college in Udupi district**. Data were collected using a structured knowledge questionnaire and a modified 5-point Likert attitude scale. The teaching programme was administered after the pre-test and the post-test was conducted after seven days.

Results showed that during the pre-test, most participants (**82%**) had moderate knowledge, **16%** had good knowledge, and **2%** had poor knowledge regarding Polycystic Ovarian Syndrome. After the intervention, **52%** achieved excellent knowledge, **40%** had good knowledge, and **only 8%** had moderate knowledge. The mean knowledge score improved from **12.43 to 23.46**. Attitude towards Polycystic Ovarian Syndrome also improved significantly, with favourable attitude increasing from **55% in the pre-test to 100% in the post-test**. Statistical analysis revealed a significant improvement in knowledge ($t = 12.83$, $p < 0.05$) and attitude ($t = 14.292$, $p < 0.05$) after the intervention.

The study concluded that the Video Assisted Teaching Programme was **effective** in improving knowledge and attitude regarding early identification and management of Polycystic Ovarian Syndrome among adolescent girls. Educational interventions can play an important role in promoting awareness and early management of Polycystic Ovarian Syndrome among young women.

Keywords: Polycystic Ovarian Syndrome, Adolescent girls, Knowledge, Attitude, Video assisted teaching programme.

INTRODUCTION

Adolescence is a crucial transitional stage marked by significant physical, psychological, and hormonal changes in girls. The onset of menarche signifies reproductive maturity and brings important physiological adaptations. During this period, various gynaecological problems may emerge, among which Polycystic Ovarian Syndrome is one of the most common endocrine disorders affecting women of reproductive age.

Polycystic Ovarian Syndrome is characterized by hyperandrogenism, ovulatory dysfunction, and polycystic ovarian morphology. The global prevalence ranges from 8% to 13%, with higher rates reported among Indian adolescents. Polycystic Ovarian Syndrome is associated with menstrual irregularities, infertility, obesity, insulin resistance, and long-term metabolic complications such as type 2 diabetes and cardiovascular disease.

Early symptoms often go unnoticed or are ignored due to lack of awareness. Delayed diagnosis may lead to serious reproductive and psychological consequences. Since adolescence is the ideal stage for early intervention, awareness and education are essential. Therefore, improving knowledge and attitude regarding early identification and management of Polycystic Ovarian Syndrome among adolescent girls is of paramount importance.

NEED FOR THE STUDY

Polycystic Ovarian Syndrome is one of the most common endocrine disorders affecting adolescent girls and women of reproductive age. Despite its increasing prevalence, many adolescents lack adequate knowledge regarding its early identification and management. Lack of awareness often leads to delayed diagnosis and increased risk of complications such as infertility, metabolic disorders, and cardiovascular diseases.

Educational interventions are essential to improve knowledge and promote positive attitudes toward reproductive health. Therefore, this study aims to evaluate the effectiveness of a video-assisted teaching programme in improving knowledge and attitude regarding early identification and management of Polycystic Ovarian Syndrome among adolescent girls.

OBJECTIVES OF THE STUDY

1. To assess the level of knowledge and attitude regarding early identification and management of Polycystic Ovarian Syndrome.
2. To determine the effectiveness of video assisted teaching programme regarding early identification and management of Polycystic Ovarian Syndrome.
3. To find out the association between pre-test and post test level of knowledge and attitude regarding Polycystic Ovarian Syndrome with selected demographic value.

HYPOTHESES

H₁: The mean post-test knowledge scores of adolescent girls receiving video assisted teaching programme regarding Polycystic Ovarian Syndrome will be significantly higher than the mean pre-test knowledge scores at 0.05 level of significance.

H₂: The mean post-test attitude scores of adolescent girls receiving video assisted teaching programme regarding Polycystic Ovarian Syndrome will be significantly higher than the mean pre-test attitude scores at 0.05 level of significance.

H₃: There will be significant statistical association between pre-test and post-test level of knowledge and attitude scores with their selected socio-demographic variables at 0.05 level of significance.

METHODOLOGY

- **Research Approach:** Evaluative research approach.
- **Research Design:** Pre-experimental one-group pre-test post-test design.
- **Research Setting:** Vidya College of Nursing, Kapu, Udupi District.
- **Population:** Adolescent girls studying in selected nursing colleges of Udupi district.
- **Target Population:** Adolescent girls studying in 1st year GNM and 1st year B.Sc Nursing.
- **Sample Size:** 60 adolescent girls
- **Sampling Technique:** Non-probability convenience sampling
- **Study Variables**
 - **Independent Variable:** Video Assisted Teaching Programme on Polycystic Ovarian Syndrome.
 - **Dependent Variable:** Knowledge and attitude regarding Polycystic Ovarian Syndrome.
 - **Demographic Variables:** Age, religion, habitant, dietary pattern, education of parents, age at menarche, duration of menstrual flow, menstrual regularity, and family history of Polycystic Ovarian Syndrome.
- **Data Collection Tool:** Three sections:
 - Socio-demographic data
 - Structured knowledge questionnaire (30 questions)
 - Attitude scale – Modified 5-point Likert scale (20 statements)
- **Content Validity:** Tool validated by 7 experts (OBG nursing experts, gynaecologists, psychiatrist, and statistician).
- **Reliability:** Knowledge tool reliability $r = 0.85$, Attitude scale reliability $r = 0.93$
- **Data Collection Procedure**
 - **Day 1:** Pre-test conducted using questionnaire and attitude scale and Video assisted teaching programme administered.

- **Day 8:** Post-test conducted using same tool.
- **Data Analysis**
 - **Descriptive statistics:** mean, median, standard deviation, frequency, percentage
 - **Inferential statistics:** paired t-test, chi-square test, Fisher's exact test.

RESULTS

The analysis of data is organized and presented under the following sections.

Section A: Demographic variables of adolescent girls with respect to age, religion, habitant, dietary pattern, education of parents, age at menarche in years, duration of menstrual flow, menstrual regularity, and family history of polycystic ovarian syndrome.

Section B: Assessment of pre test and post test level of knowledge regarding early identification and management of polycystic ovarian syndrome.

Part I: Distribution of the subject's overall knowledge regarding early identification and management of polycystic ovarian syndrome.

Part II: Area-wise analysis of pretest and post test knowledge regarding early identification and management of polycystic ovarian syndrome.

Section C: Assessment of pretest and post test attitude score of adolescent girls regarding early identification and management of polycystic ovarian syndrome.

Section D: Effectiveness of video assisted teaching programme regarding early identification and management of polycystic ovarian syndrome.

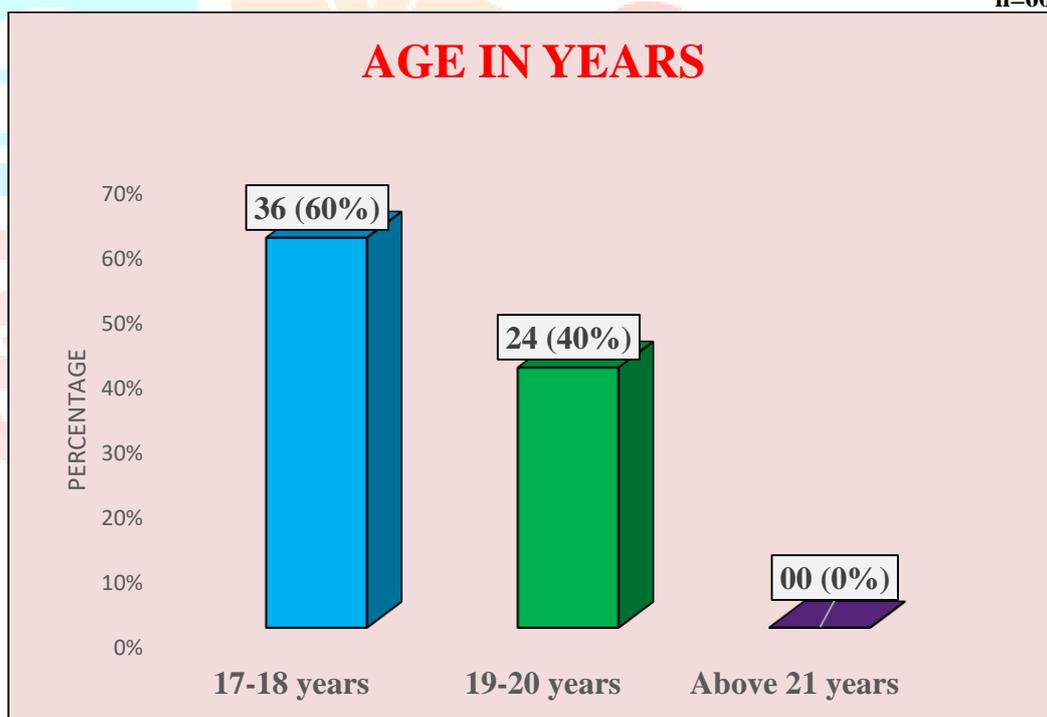
Section E:

Part I: Association of pretest and post test level of knowledge with demographic variables.

Part II: Association of pretest and post test level of attitude with demographic variables.

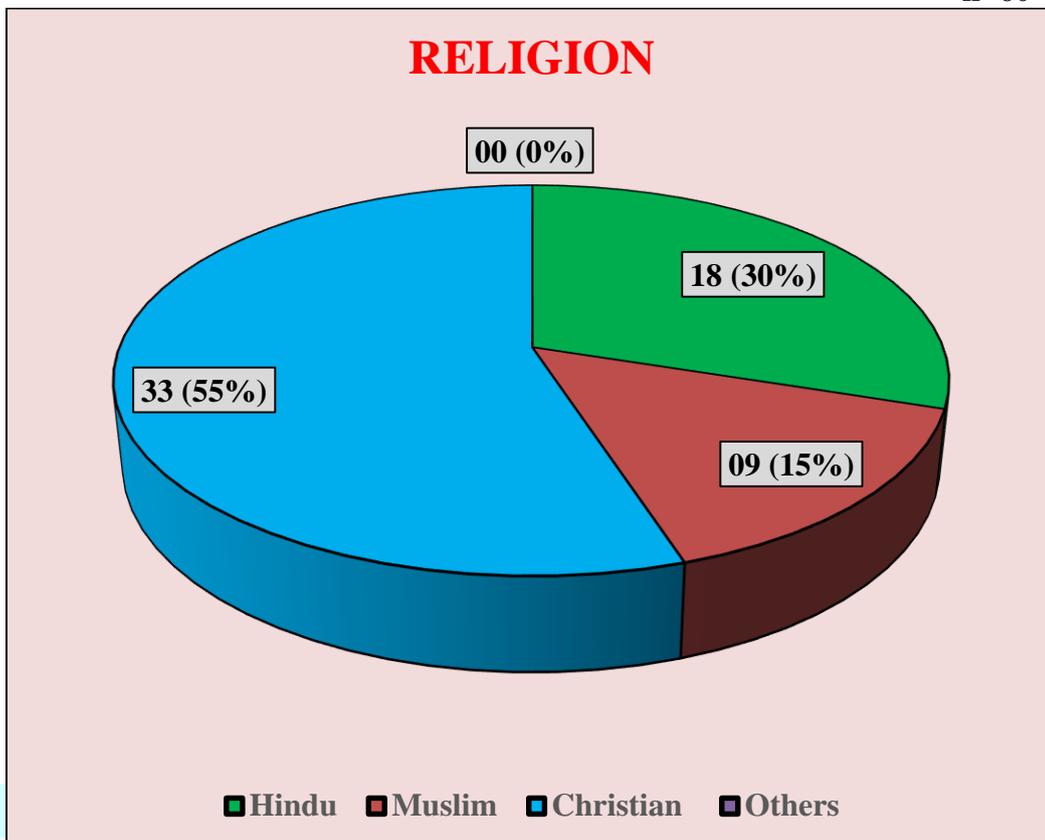
Section A: Frequency and percentage distribution according to demographic variables of adolescent girls

n=60



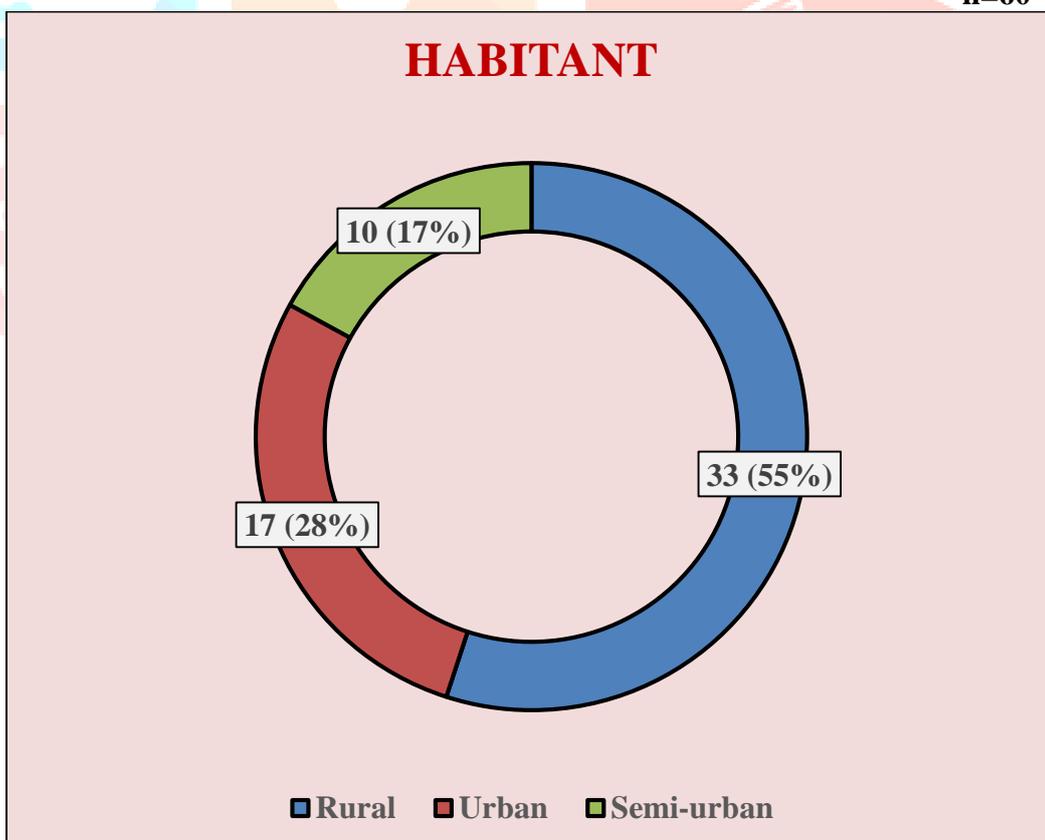
Bar diagram representing frequency distribution and number of subjects based on age.

n=60



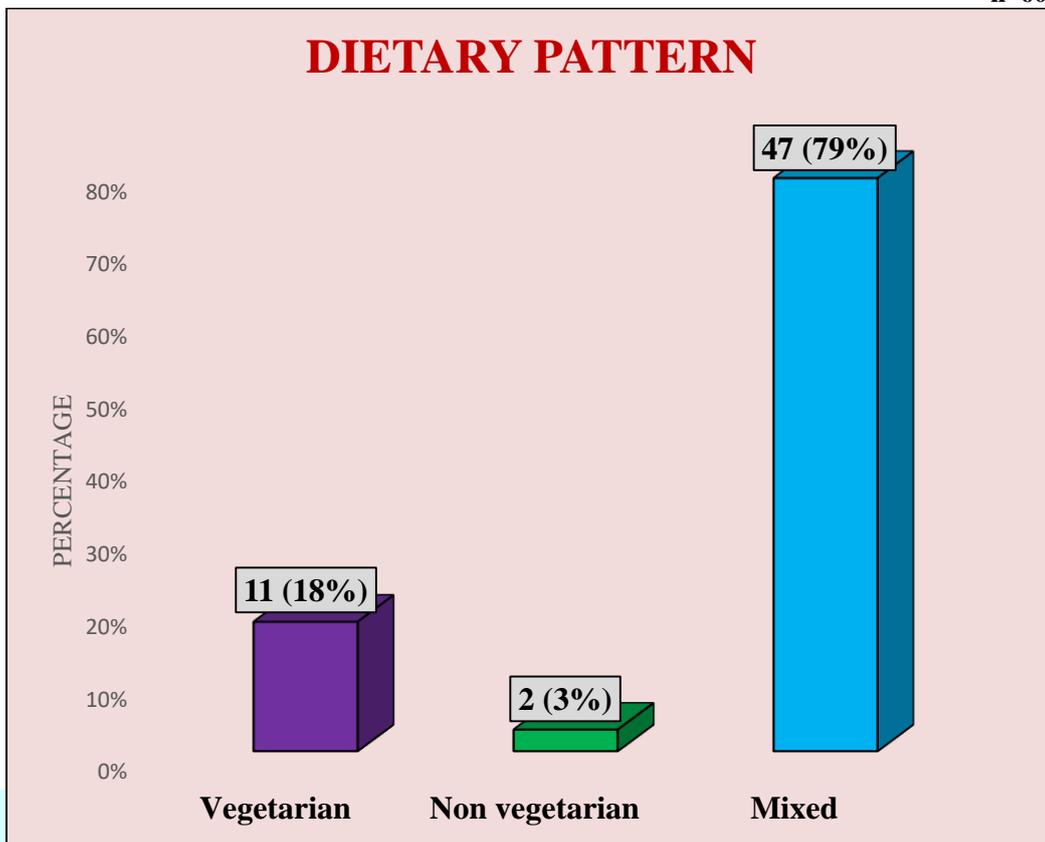
Pie diagram representing percentage distribution and number of subjects based on religion.

n=60



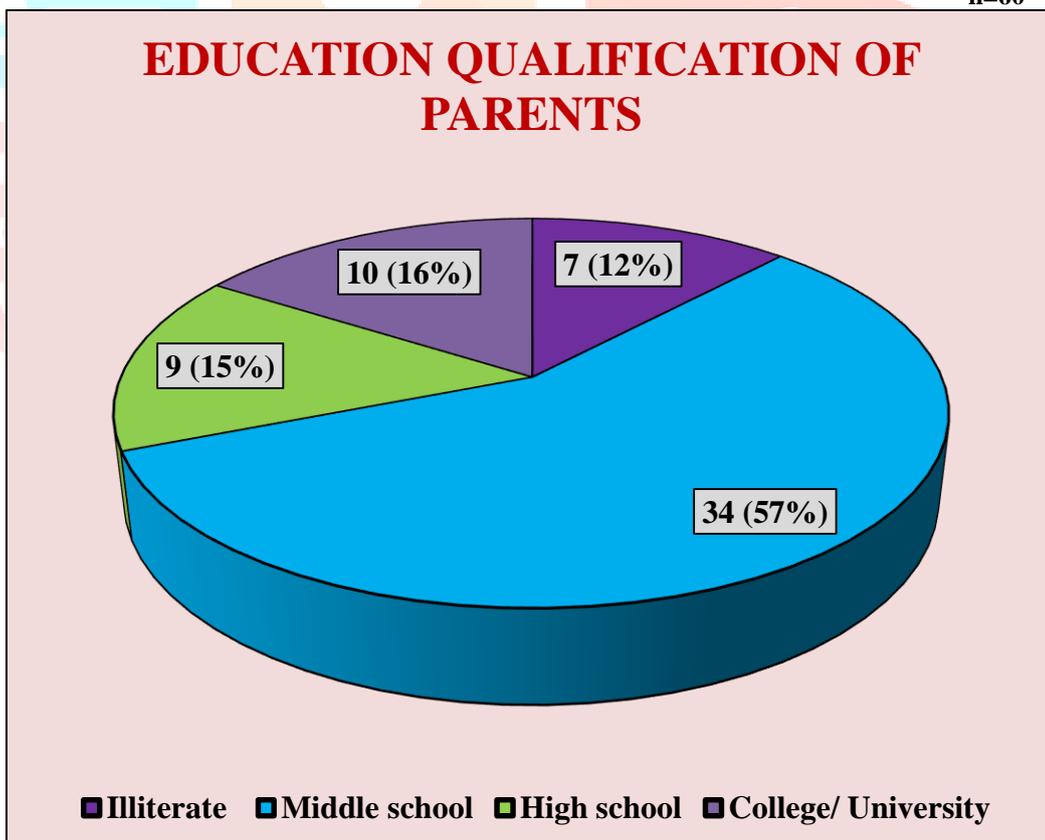
Doughnut diagram representing the percentage distribution and number of subjects based on habitant.

n=60



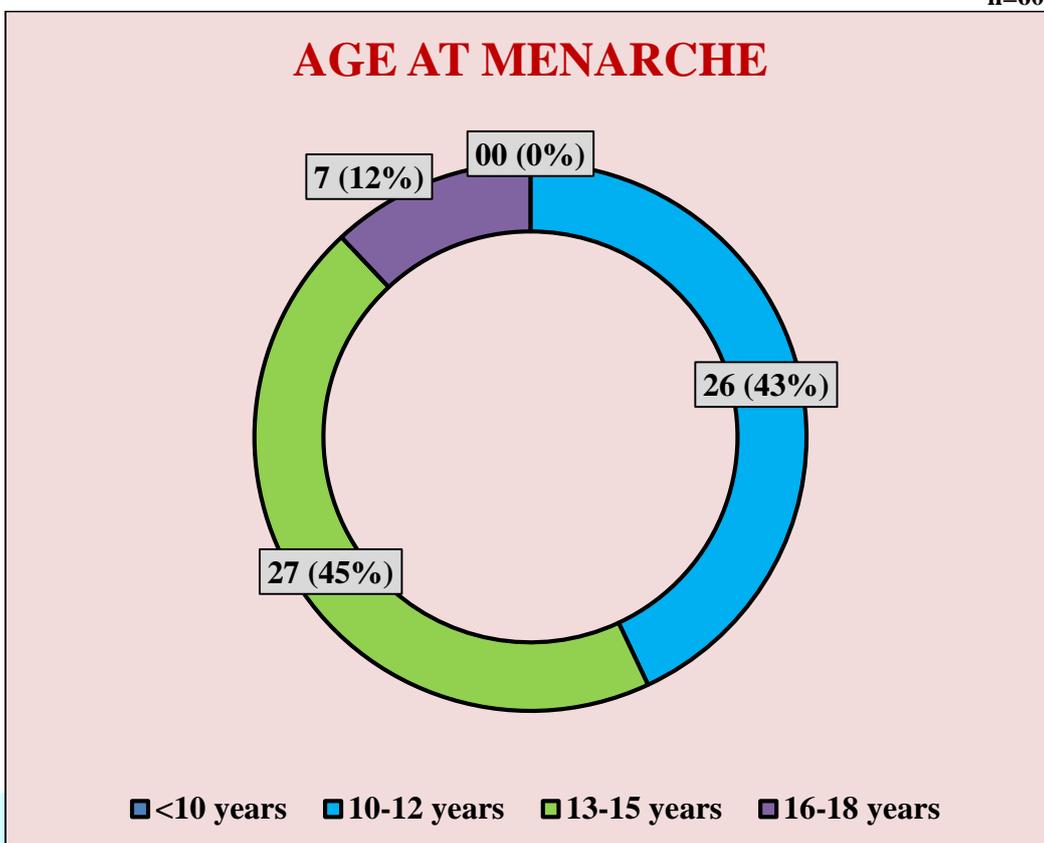
Bar diagram representing percentage distribution and number of subjects based on dietary patterns.

n=60



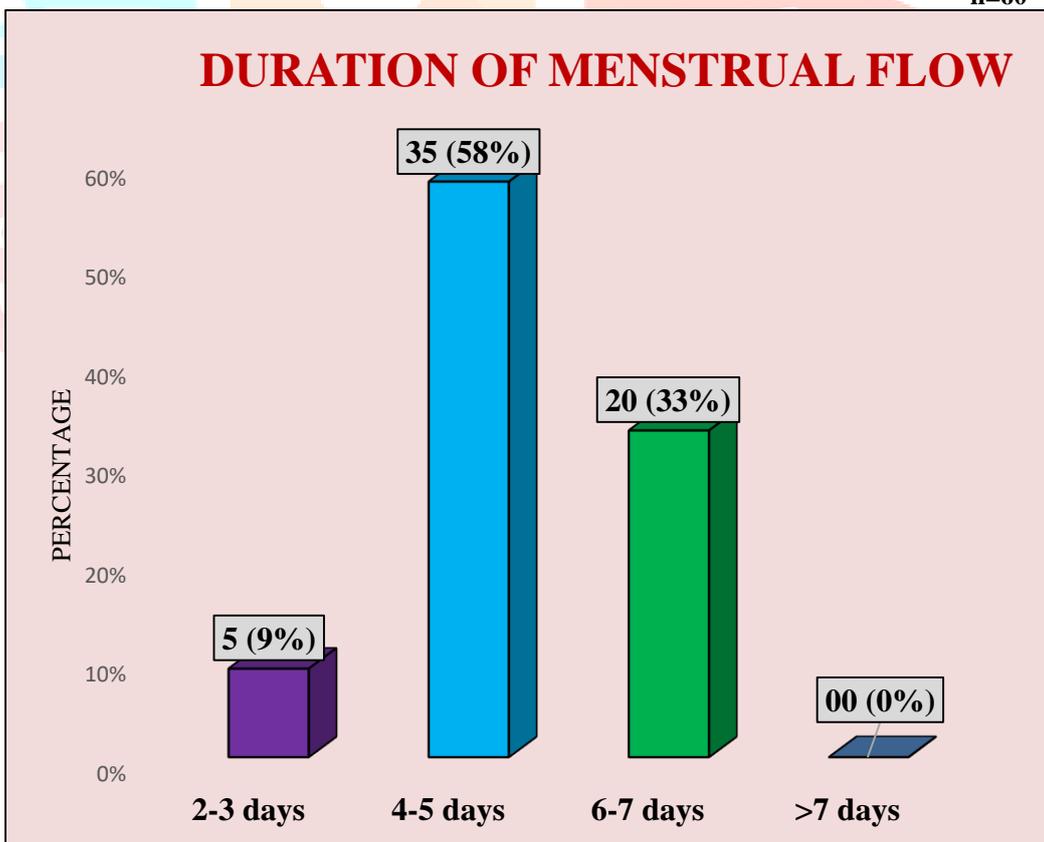
Pie diagram representing the percentage distribution and number of subjects based on the educational qualification of parents.

n=60



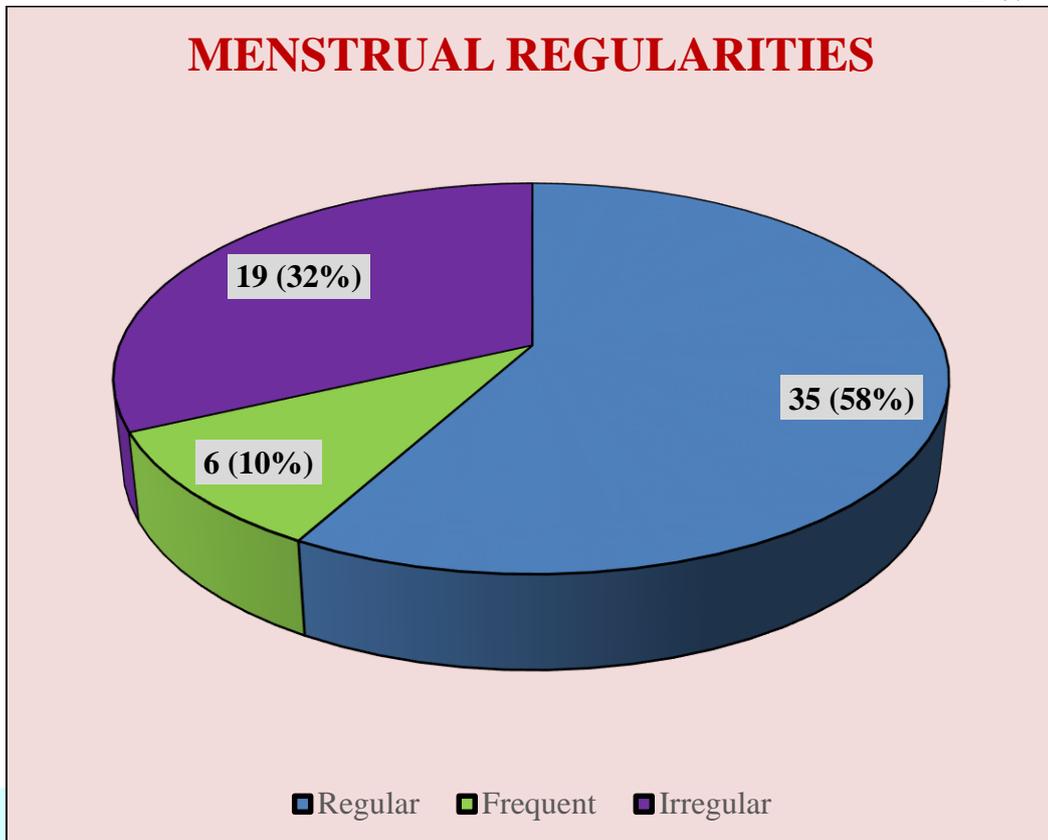
Doughnut diagram representing percentage distribution and number of subjects based on age at menarche.

n=60



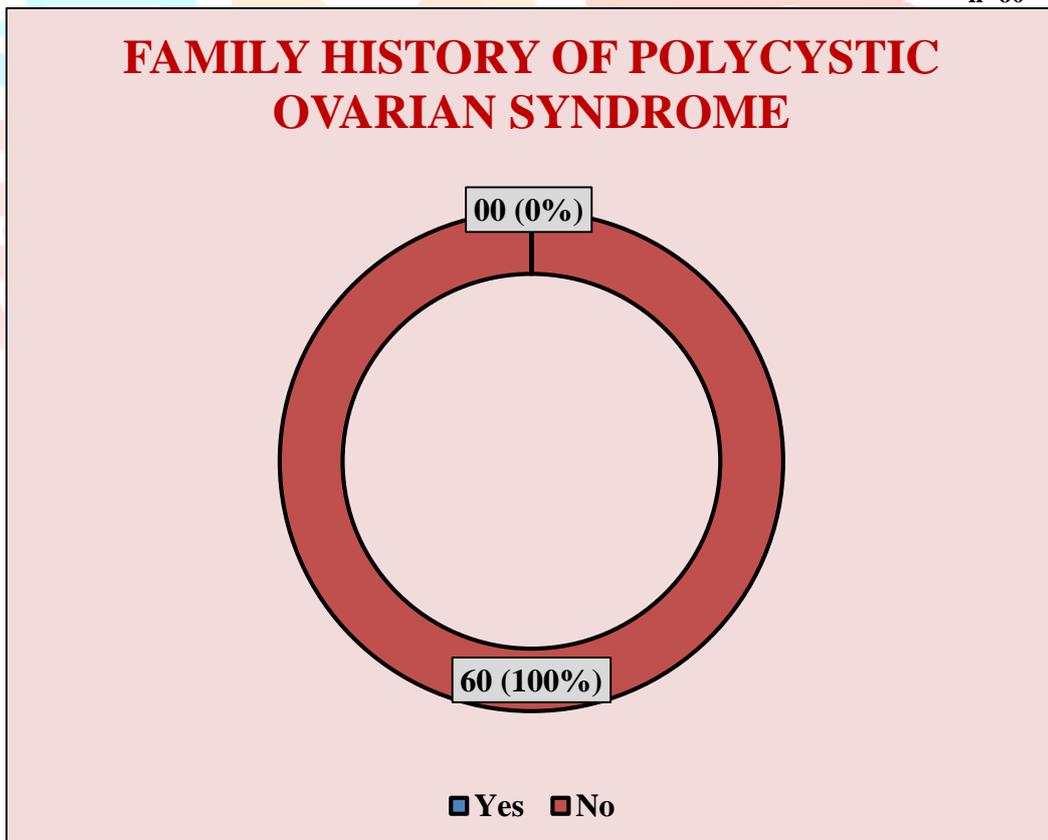
Bar diagram representing percentage distribution and number of subjects based on duration of menstrual flow.

n=60



Pie diagram representing percentage distribution and number of subjects based on menstrual regularities.

n=60



Doughnut diagram representing percentage distribution and number of subjects based on family history of Polycystic Ovarian Syndrome.

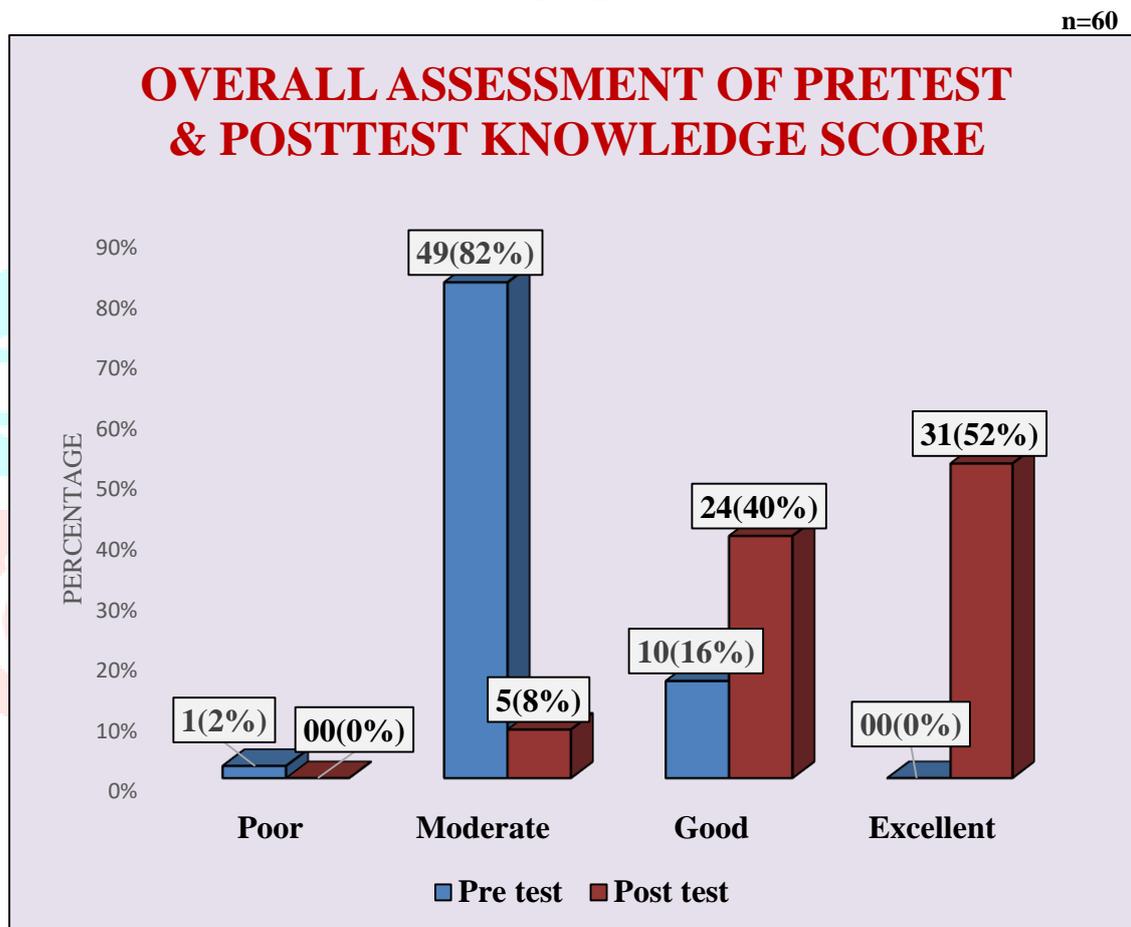
Section B: Assessment of pre test and post test level of knowledge regarding early identification and management of polycystic ovarian syndrome

Part I: Table 1: Distribution of the subject’s overall knowledge regarding early identification and management of Polycystic Ovarian Syndrome.

n=60

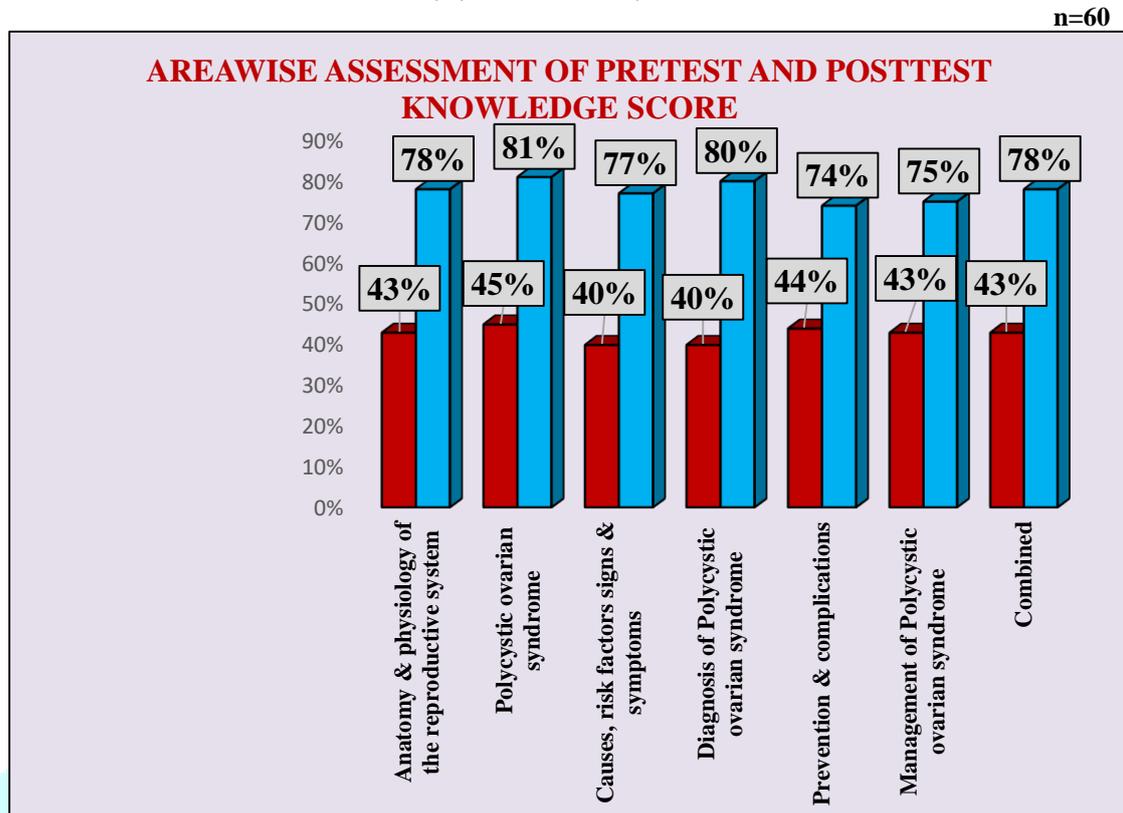
Level of knowledge among adolescent girls regarding early identification and management of Polycystic Ovarian Syndrome	Frequency (f)		Percentage (%)	
	Pre test	Post test	Pre test	Post test
Poor	1	0	2%	0%
Moderate	49	5	82%	8%
Good	10	24	16%	40%
Excellent	0	31	0%	52%
Total	60	60	100%	100%

Part II:



Bar diagram representing percentage distribution and number of subjects based on pretest and posttest knowledge scores.

Part II: Area-wise analysis of pretest and post test knowledge regarding early identification and management of Polycystic Ovarian Syndrome.



Bar diagram representing percentage distribution and number of subjects based Area-wise analysis of pretest and posttest knowledge scores.

Section C: Table 2: Assessment of pretest and posttest attitude score of adolescent girls regarding early identification and management of polycystic ovarian syndrome.

n=60

Sl.No	Overall level of attitude of adolescent girls	PRETEST		POSTTEST	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
1	Unfavourable attitude	27	45	0	0
2	Favourable attitude	33	55	60	100
TOTAL		60	100 %	60	100 %

Section D: Table 3: Comparison of pretest and posttest knowledge and attitude score

n=60

	Mean	SD	"t" value
Knowledge score			
Pre test	12.43	17.3	12.83*
Post test	23.46	17.4	
Attitude score			
Pre test	51.3	54.8	14.292*
Post test	71.6	52.1	

*Significant

Section E:

Part I: Table 4: Association between pretest level of knowledge scores with selected demographic variables.

n=60

Demographic variables	Knowledge level		Chi-square value	df	p-value	Significance
	Moderate	Poor				
1. Age in years						
a) 17-18 years	27	9	1.0714	1	0.3006	NS
b) 19-20 years	15	9				
2. Religion						
a) Hindu	13	5	1*	5	0.9362	NS
b) Muslim	6	3				
c) Christian	24	9				
3. Habitant						
a) Rural	27	6	0.1436*	5	0.212	NS
b) Urban	10	7				
c) Semi-urban	7	3				
4. Dietary pattern						
a) Vegetarian	9	2	0.6747*	5	0.4221	NS
b) Non vegetarian	1	1				
c) Mixed	40	7				
5. Educational qualification of the parent						
a) Illiterate	6	1	0.0105*	7	0.0265	S*
b) Middle school	29	5				
c) High school	6	3				
d) College/ University	4	6				
5. Age at menarche in years						
a) 10-12 years	19	7	0.581*	5	0.7011	NS
b) 13-15 years	18	9				
c) 16-18 years	4	3				
7. Duration of menstrual flow						
a) 2-3 days	3	2	0.2234*	5	0.2442	NS
b) 4-5 days	29	6				
c) 6-7 days	13	7				
8. Menstrual regularities						
a) Regular	28	7	0.2375*	5	0.3795	NS
b) Frequent	4	2				
c) Irregular	12	7				

*Fisher exact test

The table 4, showed association of pretest level of knowledge score with selected demographic variables. The variable such as the education of parents had significant association with knowledge score. The variables such as age, religion, habitant, dietary pattern, age at menarche in years, duration of menstrual flow, menstrual regularity, and family history of PCOS at a 0.05 level of significance do not show any significant association. Hence, the hypothesis H₂ is partially accepted.

Table 5: Association between posttest level of knowledge scores with selected demographic variables.
n=60

Demographic variables	Knowledge		Fisher exact test	Significance
	Moderate	Poor		
1. Age in years				
a) 17-18 years	3	33	1	NS
b) 19-20 years	2	22		
2. Religion				
a) Hindu	1	17	1	NS
b) Muslim	2	7		
c) Christian	2	31		
3. Habitant				
a) Rural	1	29	0.1936	NS
b) Urban	1	16		
c) Semi-urban	3	10		
4. Dietary pattern				
a) Vegetarian	2	9	0.5741	NS
b) Non vegetarian	1	1		
c) Mixed	2	45		
5. Educational qualification of the parent				
a) Illiterate	1	6	0.0108	S*
b) Middle school	2	32		
c) High school	1	8		
d) College/ University	1	9		
5. Age at menarche in years				
a) 10-12 years	2	24	0.637	NS
b) 13-15 years	2	25		
c) 16-18 years	1	6		
7. Duration of menstrual flow				
a) 2-3 days	1	4	0.2321	NS
b) 4-5 days	3	32		
c) 6-7 days	1	19		
8. Menstrual regularities				
a) Regular	3	32	0.1831	NS
b) Frequent	1	5		
c) Irregular	1	18		

The table 5, showed association of post test level of knowledge score with selected demographic variables. The variable such as the education of parents, had significant association with knowledge score. The variables such as age, religion, habitant, dietary pattern, age at menarche in years, duration of menstrual flow, menstrual regularity, and family history of PCOS at a 0.05 level of significance do not show any significant association. Hence, the hypothesis H_2 is partially accepted.

Part II: Table 6: Association between pretest level of attitude scores with selected demographic variables.

Demographic variables	Attitude		Chi-square value	df	p- value	Significance
	Favourable	Unfavourable				
1. Age in years						
a) 17-18 years	30	6	1.3257	1	0.2495	NS
b) 19-20 years	17	7				
2. Religion						
a) Hindu	12	6	0.2348*	5	0.4028	NS
b) Muslim	6	3				
c) Christian	27	6				
3. Habitant						
a) Rural	29	4	0.0327*	5	0.0610	S*
b) Urban	10	7				
c) Semi-urban	7	3				
4. Dietary pattern						
a) Vegetarian	8	3	0.4368*	5	0.417	NS
b) Non vegetarian	1	1				
c) Mixed	39	8				
5. Educational qualification of the parent						
a) Illiterate	4	3	0.5468*	7	0.6252	NS
b) Middle school	26	8				
c) High school	6	3				
d) College/ University	6	4				
6. Age at menarche in years						
a) 10-12 years	20	6	0.7781*	5	0.5253	NS
b) 13-15 years	18	9				
c) 16-18 years	4	3				
7. Duration of menstrual flow						
a) 2-3 days	3	2	0.2489*	5	0.3604	NS
b) 4-5 days	27	8				
c) 6-7 days	12	8				
8. Menstrual regularities						
a) Regular	26	9	1*	5	0.9259	NS
b) Frequent	4	2				
c) Irregular	14	5				

*Fisher exact test

The table 6, showed association of pretest level of attitude score with selected demographic variables. The variable such as habitant had a significant association with attitude score. The variables such as age, religion, education of parents, dietary pattern, age at menarche in years, duration of menstrual flow, menstrual regularity, and family history of PCOS at 0.05 level of significance do not show any significant association. Hence, the hypothesis H_3 is partially accepted.

Table 7: Association between post test attitude scores with selected demographic variables.

n=60

Demographic variables	Attitude		Fisher exact test	Significance
	Favourable	Unfavourable		
1. Age in years				
a) 17-18 years	4	32	0.1928	NS
b) 19-20 years	2	22		
2. Religion				
a) Hindu	2	16	0.2192	NS
b) Muslim	3	6		
c) Christian	2	31		
3. Habitant				
a) Rural	1	32	0.0129	S*
b) Urban	1	16		
c) Semi-urban	3	7		
4. Dietary pattern				
a) Vegetarian	3	8	0.5368	NS
b) Non vegetarian	1	1		
c) Mixed	1	46		
5. Educational qualification of the parent				
a) Illiterate	1	6	0.6981	NS
b) Middle school	2	32		
c) High school	1	8		
d) College/University	1	9		
5. Age at menarche in years				
a) 10-12 years	1	25	0.8912	NS
b) 13-15 years	6	21		
c) 16-18 years	1	6		
7. Duration of menstrual flow				
a) 2-3 days	1	4	0.2489	NS
b) 4-5 days	1	34		
c) 6-7 days	3	17		
8. Menstrual regularities				
a) Regular	9	26	1	NS
b) Frequent	2	4		
c) Irregular	5	14		

The table 7, showed association of post test level of attitude score with selected demographic variables. The variable such as habitant had a significant association with attitude score. The variables such as age, religion, education of parents, dietary pattern, age at menarche in years, duration of menstrual flow, menstrual regularity, and family history of PCOS at 0.05 level of significance do not show any significant association. Hence, the hypothesis H_3 is partially accepted.

CONCLUSION

The present study evaluated the effectiveness of a Video Assisted Teaching Programme on knowledge and attitude regarding Polycystic Ovarian Syndrome among adolescent girls. The findings revealed that the pre-test knowledge and attitude levels were average to poor among the participants. After the implementation of the teaching programme, there was a significant improvement in both knowledge and attitude scores. The results indicate that video-assisted teaching is an effective educational strategy for improving awareness regarding early identification and management of Polycystic Ovarian Syndrome. Hence, educational interventions can play an important role in promoting reproductive health awareness among adolescent girls.

LIMITATIONS

- The study was limited to 60 adolescent girls from a single selected college.
- The study did not include a control group.
- The tool used for the data collection was not standardized but developed and validated by experts for this study.
- The findings are limited to the study setting and cannot be generalized.

RECOMMENDATIONS

- A similar study can be conducted with a larger sample size for broader generalization.
- A quasi-experimental study can be done with a control group for better comparison.
- Comparative studies can be conducted between rural and urban populations.
- Studies may be conducted on other groups such as school students, working women, and mothers.
- Replication of the study in different settings can provide stronger evidence for effectiveness.

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