Original Research Article

Effectiveness of Educational Interventions on Knowledge Regarding Prevention of Acne Vulgaris Among Adolescent Students (12-19 Years) of Selected High Schools of Kashmir.

ABSTRACT

Background

According to WHO, health is a state of complete physical, mental, social and spiritual wellbeing and not merely in absence of disease or infirmity. But acne significantly affects physical and psychological wellbeing. Clients who have visible chronic skin problems often withdraw from social situations and have increased social isolation. When these clients seek professional care for skin problems, psychosocial as well as physical concerns need to be met. In our society physical appearance is given very much importance and influences the way in which we are perceived by others. The skin is the most visible organ of the body and determines to a larger extent, our appearance with a wide function in social and sexual communication.

Method

30 adolescent students were selected from Muslim Modal Educational Trust school Pulwama, Kashmir. Purposive sampling technique was used for selecting the sample. A self structured questionnaire was used for data collection.

Results

The findings revealed that among demographic variables, most of the subjects were in the age group of 12-15 years (73.3%) and 26.7% of them were in the age group of 15-19 years. The pre test knowledge score shows that 3 (10%) of the participants had poor knowledge. 27(90%) had average knowledge, and 0 participants had good knowledge. Similarly post test knowledge score shows that 0 (0%) of the participants had poor knowledge, 7 (23.3%) had average knowledge, and 23(76.7%) had good knowledge. This indicates that mean post test

knowledge score is higher than mean pre test knowledge score. The obtained t value 10.659 is significant at P less than 0.05.

Key Words: Acne Vulgaris, Knowledge, Educational Intervention.

INTRODUCTION

From childhood to adulthood the transition period which occurs in an individual is a key factor which determines the future health of the individual. This journey which starts from childhood upto adolescents is very challenging. Adolescence is a phase of rapid growth and development during which emotional, physical and sexual changes occur. So this period is very important period in the life of an individual. In adolescents health and development are closely interlinked. During adolescence the physical development (sexual and body changes) that occurs is very important for psychological and social changes that mark this period as a critical stage towards becoming an adult. According to WHO, the adolescent is defined as a person between the age 10-19 years. There are about 1.2 billion adolescents worldwide and one in every 6 people in the world is an adolescents. There are 243 million adolescents comprising 21% of India's total population in India. They form a major demographic and economic force which determine the future of our nation. For a long time, there was no organized system to govern and monitor the social needs of adolescents. [1]

According to WHO, health is a state of complete physical, mental, social and spiritual wellbeing and not merely in absence of disease or infirmity. But acne significantly affects physical and psychological wellbeing. Clients who have visible chronic skin problems often withdraw from social situations and have increased social isolation. When these clients seek professional care for skin problems, psychosocial as well as physical concerns need to be met[1].In our society physical appearance is given very much importance and influences the way in which we are perceived by others. The skin is the most visible organ of the body and determines to a larger extent, our appearance with a wide function in social and sexual communication.[2]

There are a large number of reports from different parts of world which revealed wide variation in the prevalence of various skin disorders. These variations exist with respect to

age, sex, dwelling and socioeconomic status. Acne vulgaris is the undoubtedly most common human dermatological disorders (8th most common disease) with an estimated global prevalence of 94% and highest occurrence in adolescents (85%) between age group 12 and 24.[2] In India acne was found to be common dermatosis in school children with overall prevalence of 72.3% and having significant impact on their quality of life[3.] In J&K the prevalence rate of acne disorders is 19.2% which include acne vulgaris, trunkal acne and post acne scaring and among them acne vulgaris is most common having 17.2% prevalence rate in the age group 15 to 17 years reflecting the peak age for acne vulgaris as mid adolecents[3].

Acne vulgaris is a dermatological disease characterized by inflammation of the pilosebaceous units which consist of the sebaceous gland, hair shaft and hair follicle (Saxena et al 2018). It is characterized by areas of seborrhea that is increased oil sebum secretion, comedons (blackhead and whitehead), papules (pinheads), pustules (large nodules), cysts (large nodules) and possibly scarring and pigmentation. Scarring and pigmentation are caused by nodular or cystic acne (painful bumps lying under the skin). Pigmentation scars always fade with time taking 3 months to 2 years but if left untreated, they can lost indefinitely. On the other hand scars are the result of inflammation within the dermis. It affects skin with a greater number of oil glands such as face, upper part of chest, neck, shoulders and upper part of back. Despite it's negative health consequences and high burden, it is mostly under recognized by global health planners, particularly in poor resource setting. Although it's etiology was difficult to describe but from previous studies the results revealed that there is a strong genetic predisposition which is associated with acne pathogenesis. Other probable risk factors outlined in prior studies were socio economic conditions, dietry factors (chocolate, dairy products and high glycemic index diet), topical greasy preparations that block skin pores, humid climate, smoking, obesity, stress, popping up pimples and bacterial infections. In recent years evidence has emerged that western diet with high glycemic load must trigger the pathogenesis of Acne.[1,4]

Acne occurs more commonly during adolescences affecting 85% of teenagers due to androgens such as testosterone which occurs during puberty. This causes the follicular glands to grow larger and make more sebum. Several other hormones have been linked to acne vulgaris like dihydrotestosterone, dehydroepiandrosterone-sulphate, insulin like growth factor first. There is also bacterial colonization of the follicle and at the same time there may be factors like diet, genetics and non genetic factors linked to it.[5]

Adolescence is such a period when a persons physical psychological emotional and social development occurs. There is also a true fact that skin plays an important role in socialization as it is considerd as organ of communication. Adolescents consider acne vulgaris to be nearly a cosmetic problem that has significantly emotional, psychological and behavioral effects. These can negatively impact their mood self-esteem, interpersonal relationships and cause dissatisfaction and shame that intern lead to depression and suicidal ideation, anger withdrawal and anxiety.[6] The psychosocial affect of acne was first recognized in 1948, when Sulz Bargar Zalden mentioned that there is no single disease which causes more psychic trauma and more maladjustment between parents and children more general insecurity and feeling of inferiority and greater sums of psychic assessment than does Acne vulgaris. It is strongly associated with depression and anxiety.[2]

After reviewing the past researches there is much lack of knowledge about the acne among adolescents. Most of the people don't know the cause of the acne and how it is caused. Also, adolescents are not aware about the treatment of the acne vulgaris, this leads to psychological impact on their lives. Due to the lack of knowledge about the acne vulgaris most of the adolescents try to scrap the acne that leads to scaring on their skin. This makes the platform for the present study to educate the adolescents about the acne vulgaris.

Statement of the problem

A pre experimental study to assess the effectiveness of educational intervention on knowledge regarding prevention of acne vulgaris among adolescent students (12-19 years) of selected high schools of Kashmir.

Objectives of the study

- To assess the pretest knowledge score regarding prevention of acne among adolescent students (12 to 19 years) of selected high schools of Kashmir.
- To assess the post test knowledge score of adolescent students (12-19 years) regarding prevention of acne vulgaris.
- To find the effectiveness of educational intervention on knowledge by comparing pretest knowledge score and post test knowledge score on knowledge of adolescent students (12-19 years) regarding prevention of acne vulgaris.
- To find out association between the pretest level of knowledge score with selected demographic variables (age, area of residence, socioeconomic status).

Material and Methods

Quantitative Preexperimental one group pre-test post test research design was used in this study. 30 Adolescent students were selected by Purposive sampling Technique from Muslim Model Educational Trust School Pulwama . Data was collected in the month of November, 2021.A structured questionnaire of 35 questions was used to collect data regarding knowledge on prevention of Acne Vulgaris

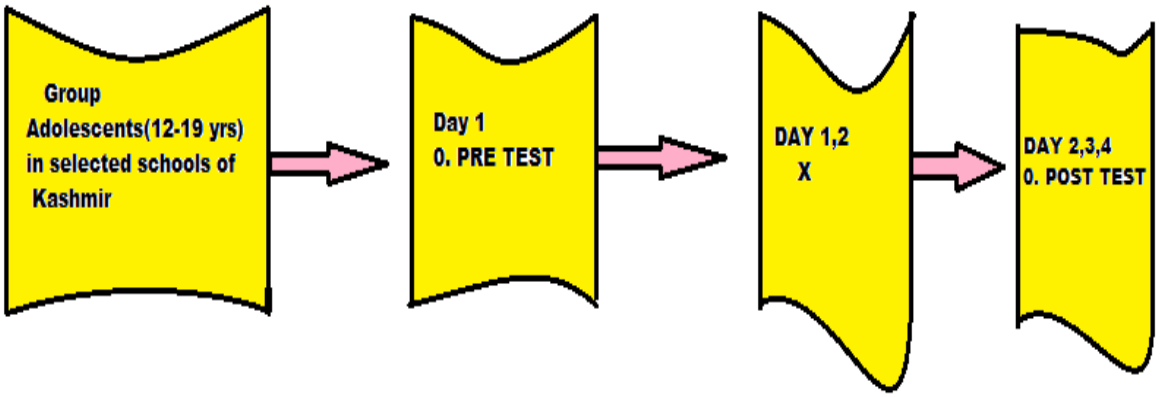


Image 1:

Key:

0_1= Knowledge test before educational intervention.

X= Intervention.

0_2= Knowledge test after educational intervention

Demographic variables

In the present study demographic variables are age, gender, socioeconomic status.

Selection and Development of tool

A structured knowledge questionnaire was used to assess the knowledge of Adolescent students (12-19 years) regarding prevention of Acne vulgaris in Muslim Model Educational Trust School Pulwama.

Description of tool

Self structured questionnaire was used as the research tool. It was divided into 4 sections.

- **Section I:-** Demographic data related to adolescent students (12 to 19 years) i.e. age, gender, area of residence and income.
- **Section II:-** This section covers General knowledge regarding Acne vulgaris, consisting of 11 questions.
- **Section III:-** This section covers knowledge regarding signs and symptoms of Acne vulgaris, consisting of 9 questions

- **Section IV:-** This is the last section which covers knowledge regarding prevention and treatment of acne vulgaris and includes 15 questions.

Chart 1: Criterion measurement:- Each correct answer carry 1 mark and each wrong answer carry 0 marks. Criteria are as follows:

Maximum score=35

Minimum score=0

Knowledge	Range
Good	23 to 35
Average	13 to 22
Poor	0 to 12

Validity of tool

The tool used for data collection was structured knowledge questionnaire and was validated by – Dr. Umar Yaseen, Assistant Professor Dermatology Govt. Medical College Anantnag

Dr. Manzoor Ahmad Bhat, Registrar Dermatology Unit Govt. S.M.H.S Hospital Srinagar

Dr. Khalid Aziz, Medical Officer (Dermatology)

Ms. Asmat Parveen , Prinicipal Syed Mantaqi Memorial College of Nursing and Medical Technology, IUST Awantipora.

Data collection method

Before collecting data permission was taken from the principal of Syed Mantaqi Memorial College of Nursing And Medical Technology and was sent to principal of Muslim Model Educational Trust School Pulwama Kashmir. To conduct the study, the duration of the data collection was 1 week from 26 November 2021 to 2nd December 2021. Participants were gathered and were provided instructions about filling of responses and were informed about the purpose of study, a formal consent was obtained from the participants . The total time for

pretest and post test was about 40 minutes. During this process the confidentiality and privacy were administered and the planned educational intervention was provided in presence of expert regarding prevention of Acne vulgaris. Finally the educational interventions were given to the adolescents (12-19 years) and the duration was of 60 minutes. After 5 days post test was taken.

Chart 2: After 5 days post test

Pre test	**Date** **26-11-2021**	**Time** **10:00 am – 10:40 am**
Educational intervention	27-11-2021 to 28-11-2021	11:00 am – 12:00 pm
Post test	02-12-2021	10:00 am -10:40 am

Plan for data analysis

The data obtained were analyzed in terms of objectives of the study by using descriptive and inferential statistics.

The plan for data analyses was follows:

Descriptive statistics

Descriptive statistics was used to describe the socio-demographic data and level of knowledge of the subjects by frequency and percentage distribution.

To compute mean, mean percentage and standard deviation for the pre-test and post-test knowledge among a subjects.

Inferential statistics

t-test was used to compare pre-test and post-test knowledge scores.

Paired “t” test to evaluate the effectiveness of structured interview questionare on knowledge.

Chi square test was used to asses the association between the selected socio-demographic variables and pre-test score.

Scoring technique

Section-A:- The sociodemographic variables were coded to assess the background of the subjects.

Section-B:- in the structured interview questionnaire, each correct answer was given a score of one and the wrong answer was given a score of zero.

Chart 3: To interpret the score, it was categorized into :-

Knowledge level	**Score**
Poor	0 to 12
Average	13 to 22
Good	23 to 35

Presentation of data

The data obtained was entered in a master data sheet for tabulation and statistical processing. The analysis of data is organized and presented under the following sections:

Section-A: Socio-demographic variables of subjects.

Section-B: Pre-test level of knowledge regarding Prevention of acne-vulgaris.

Section-C: Post-test level of knowledge regarding prevention of acne vulgaris**.**

Section-D: Effectiveness of educational interventions on knowledge regarding prevention of acne-vulgaris.

Section-A:- Socio-demographic variables of subjects.

TABLE 1: Frequency and percentage distribution of socio-demographical variables

Variables	**Opts**	**Percentage**	**Frequency**
Age	12-15 Years	73.3%	22

	15-19 Years	26.7%	8
Monthly Income	10-20 K	46.7%	14
	>20 K	53.3%	16
Area of Residence	Rural	53.3%	16
	Urban	46.7%	14
Gender	Male	36.7%	11
	Female	63.3%	19

Table:1 reveals that 22(73.3%) participants are in age group 12-15 years, 8(26.7%) are in age group 15-19 years. 14 (46.7%) participants have 10-20K monthly income and 16 (53.3%) have > 20K monthly income. 16 participants (53.3%) are from rural areas and 14 (46.7%) are from urban areas . There are 11 (36.7%) male participants and 19 (63.3%) are female participants.

Fig.1 Frequency and %age distribution of subjects wrt age

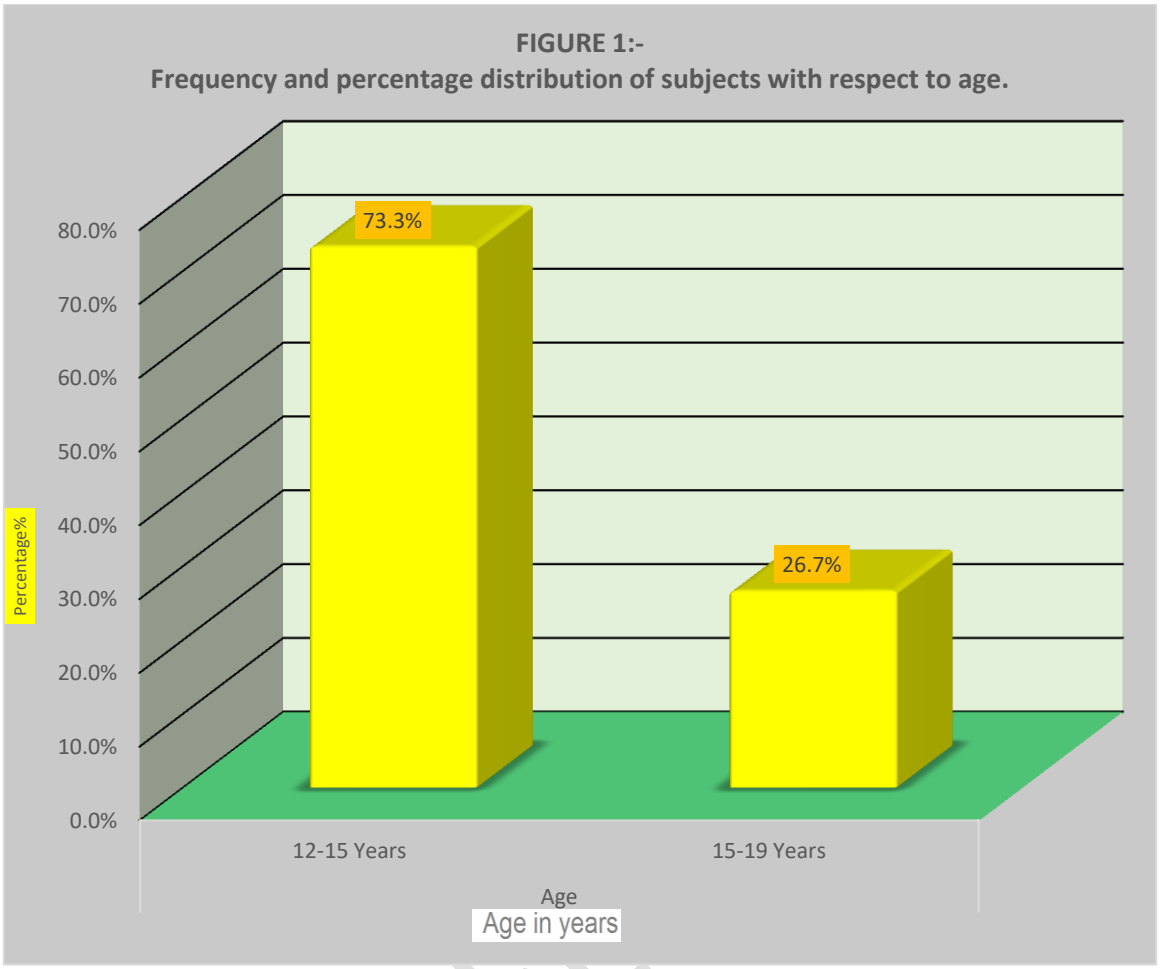


Fig.2 Frequency and %age distribution of subjects wrt income

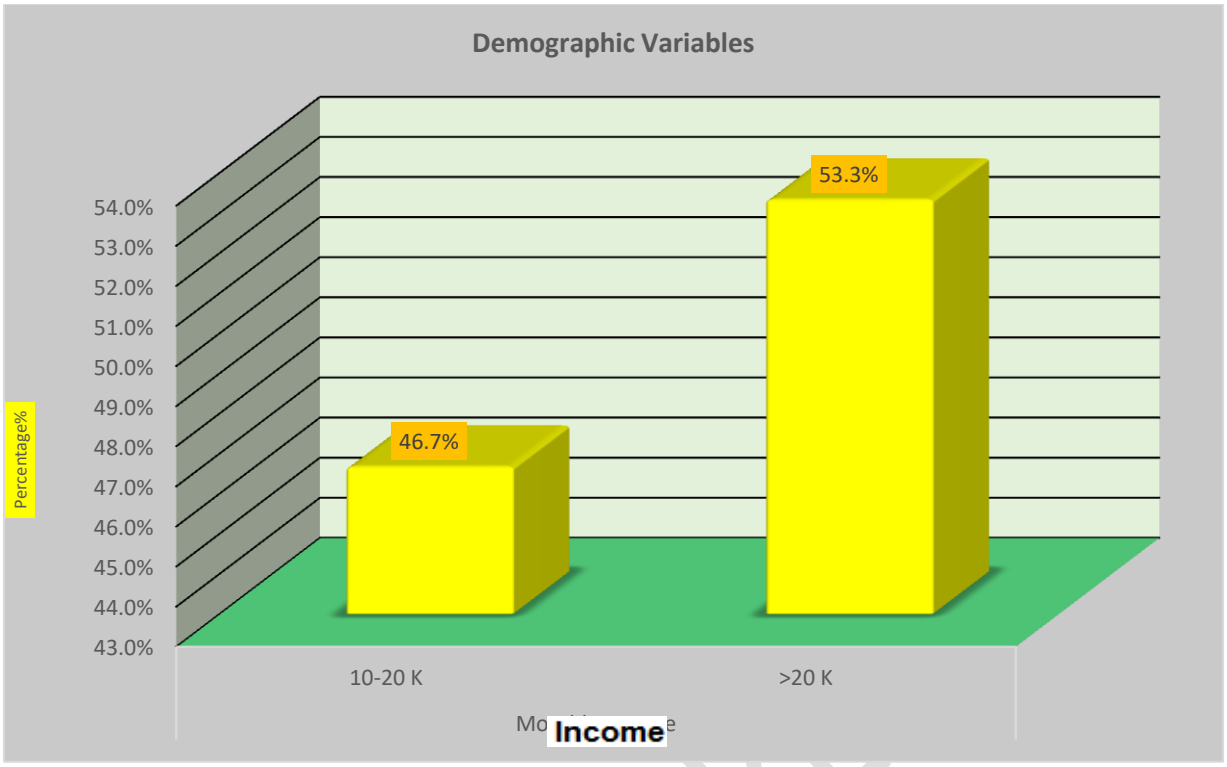


Fig. 3. Frequency and %age distribution of subjects wrt their area of residence

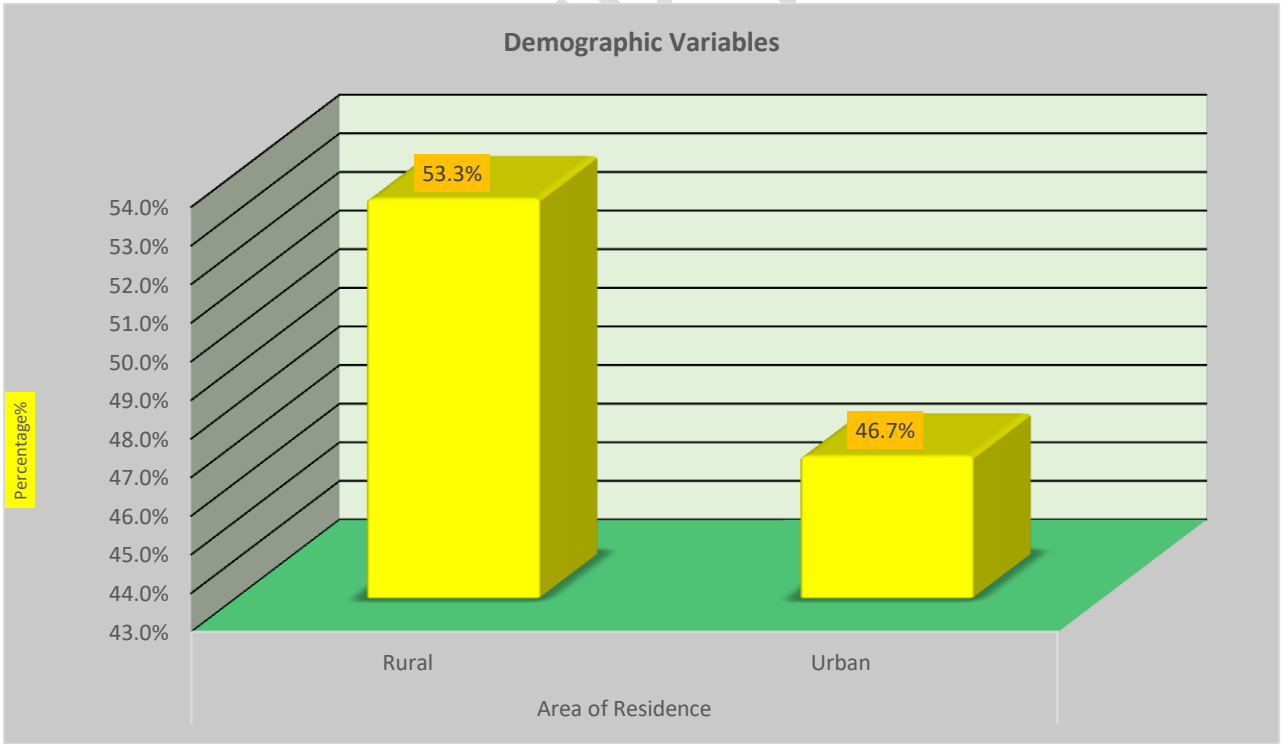
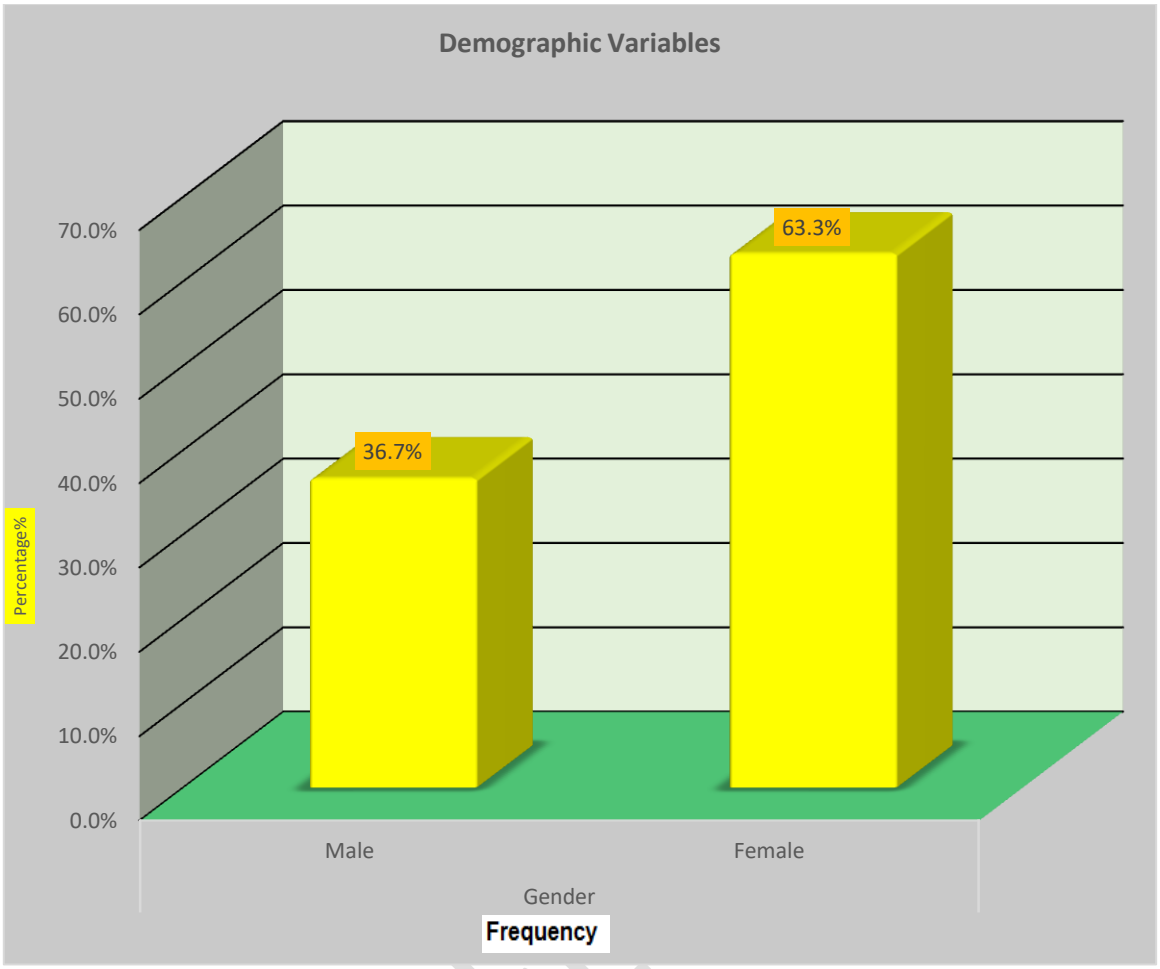


Fig. 4. Frequency and %age distribution of subjects wrt their gender



Section B:- Pre Test level of knowledge of subjects regarding prevention of acne vulgaris.

Table 2.:Mean, Mean %age and S.D of Pre test level of knowledge regarding prevention of acne vulgaris

N=30

Descriptive Statistics	Mean	S.D.	Median Score	Maximum	Minimum	Range	Mean%
PRETEST KNOWLEDGE	15.97	2.895	15.5	22	10	12	45.60
	Maximum=	35	Minimum=	0			

Table 2, Fig 5,6 shows that Mean pretest score is 15.97 with mean %age of 45.60% and SD is 2.895.

The highest score obtained is 22 and lowest score is 10(Range=12).

Fig.5. **Pre test knowledge score**

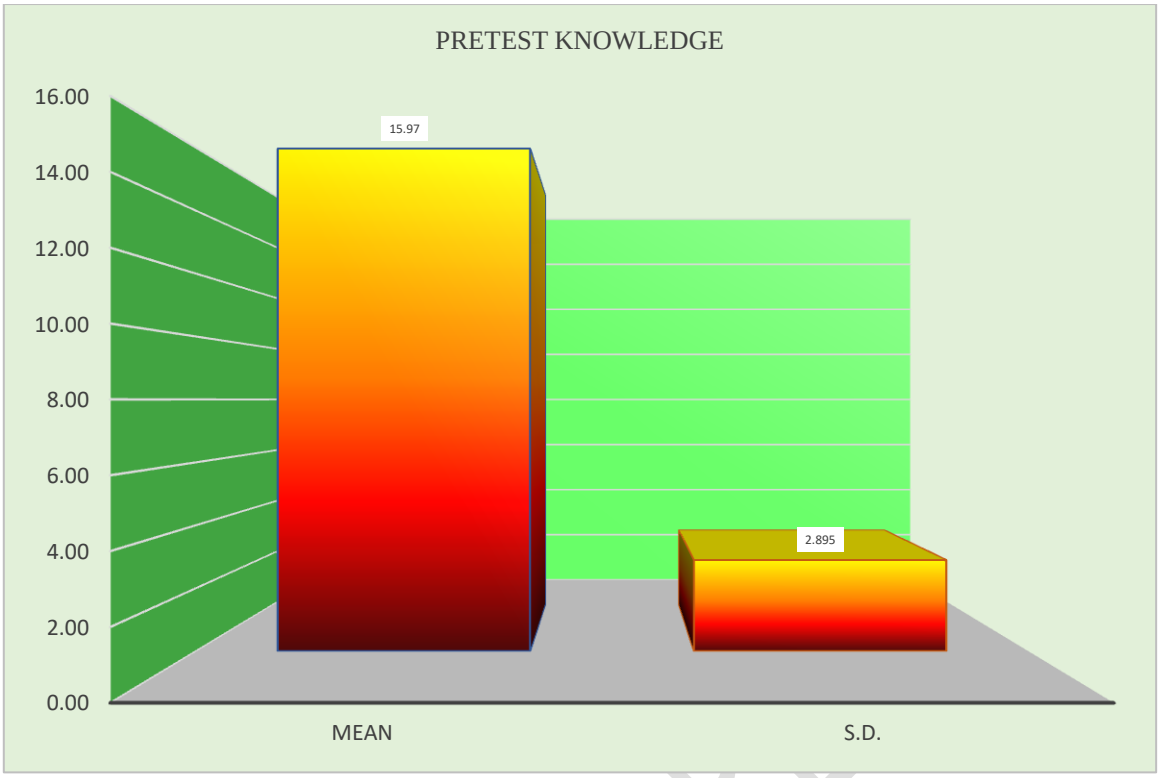


Fig.6: Pre test knowledge mean, SD, median score, maximum, minimum, range

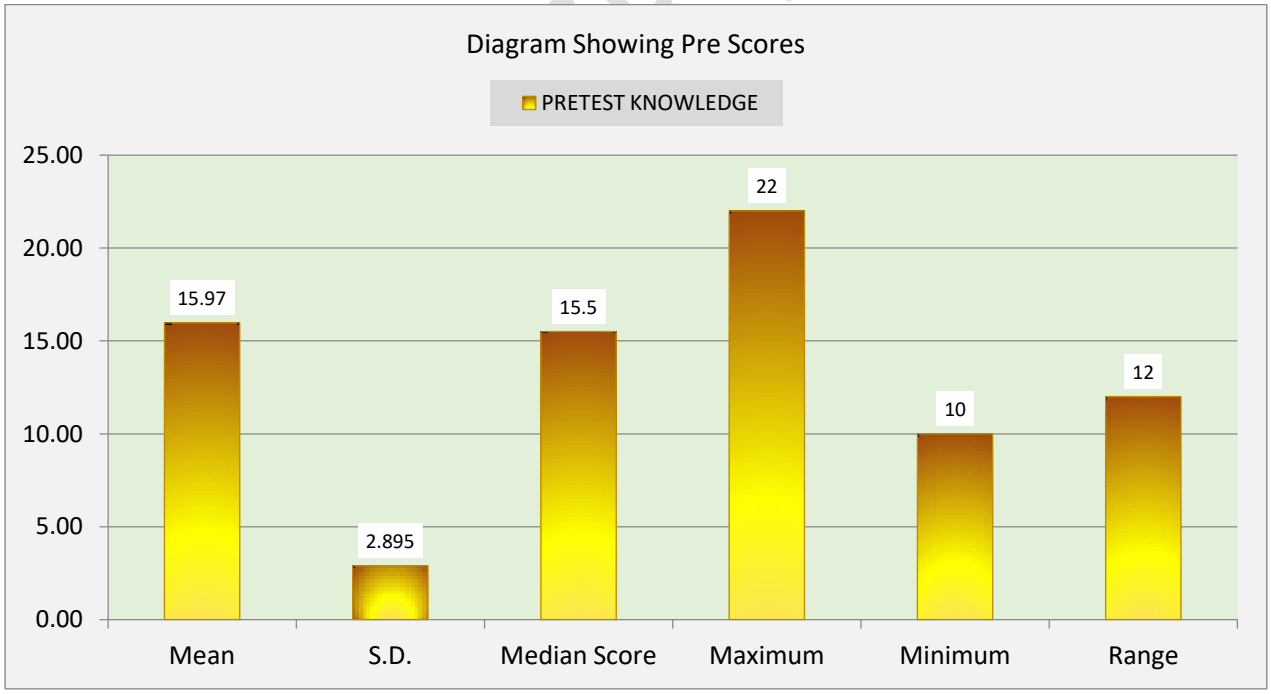


Table No.3 : Frequency and Mean %age distribution of pre test level of knowledge of subjects regarding prevention of Acne vulgaris.

CRITERIA MEASURE OF PRETEST KNOWLEDGE SCORE	
Score Level (N= 30)	PRETEST f(%)
Poor.(0-12)	3(10%)
Average.(13-22)	27(90%)
Good.(23-35)	0(0%)

Maximum Score=35 Minimum Score=0

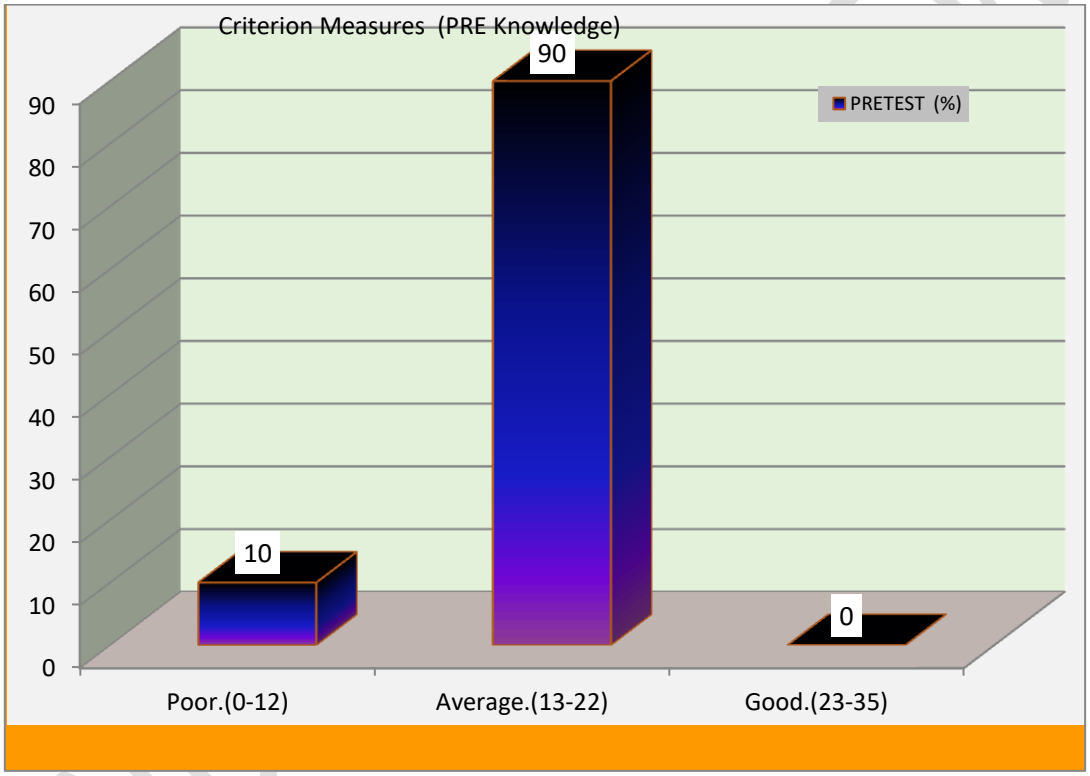


Fig.7: Frequency and %age distribution of pre test knowledge score.

Table 3 and Fig. 7shows that most of the study subjects i.e 27(90%) had average knowledge, in the pre test, 3(10%) had poor knowledge in the pre test and o(0%) study subjects had good knowledge in the pre test.

Section C:_ Post test level of knowledge of subjects regarding prevention of acne vulgaris

Table No.4 : Mean , Mean %age and S.D of post test level of knowledge of scores of subjects regarding prevention of acne vulgaris

				N=	30		
Descriptive Statistics	Mean	S.D.	Median Score	Maximum	Minimum	Range	Mean%
POSTTEST KNOWLEDGE	25.27	4.034	26	31	14	17	72.20
	Maximum=	35	Minimum=	0			

Fig.8. Diagram showing post test knowledge

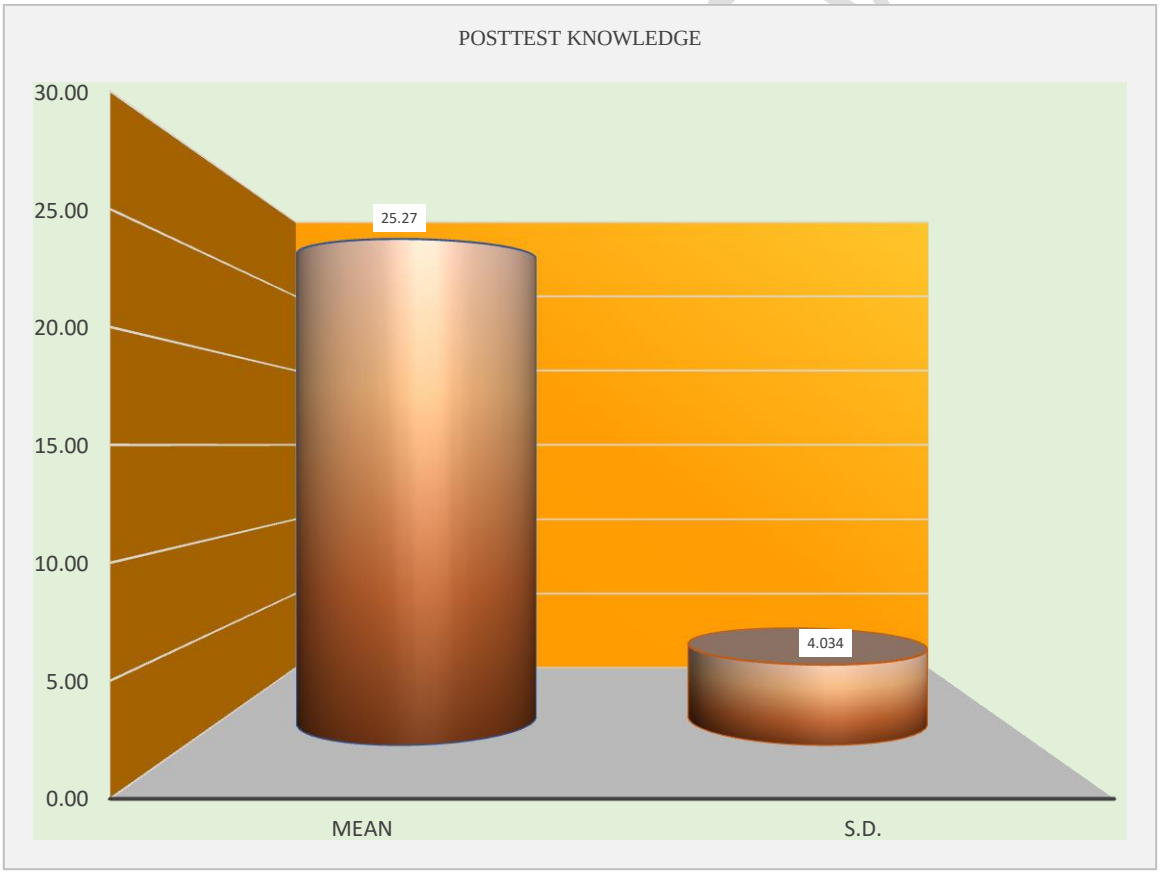


Fig. 9.

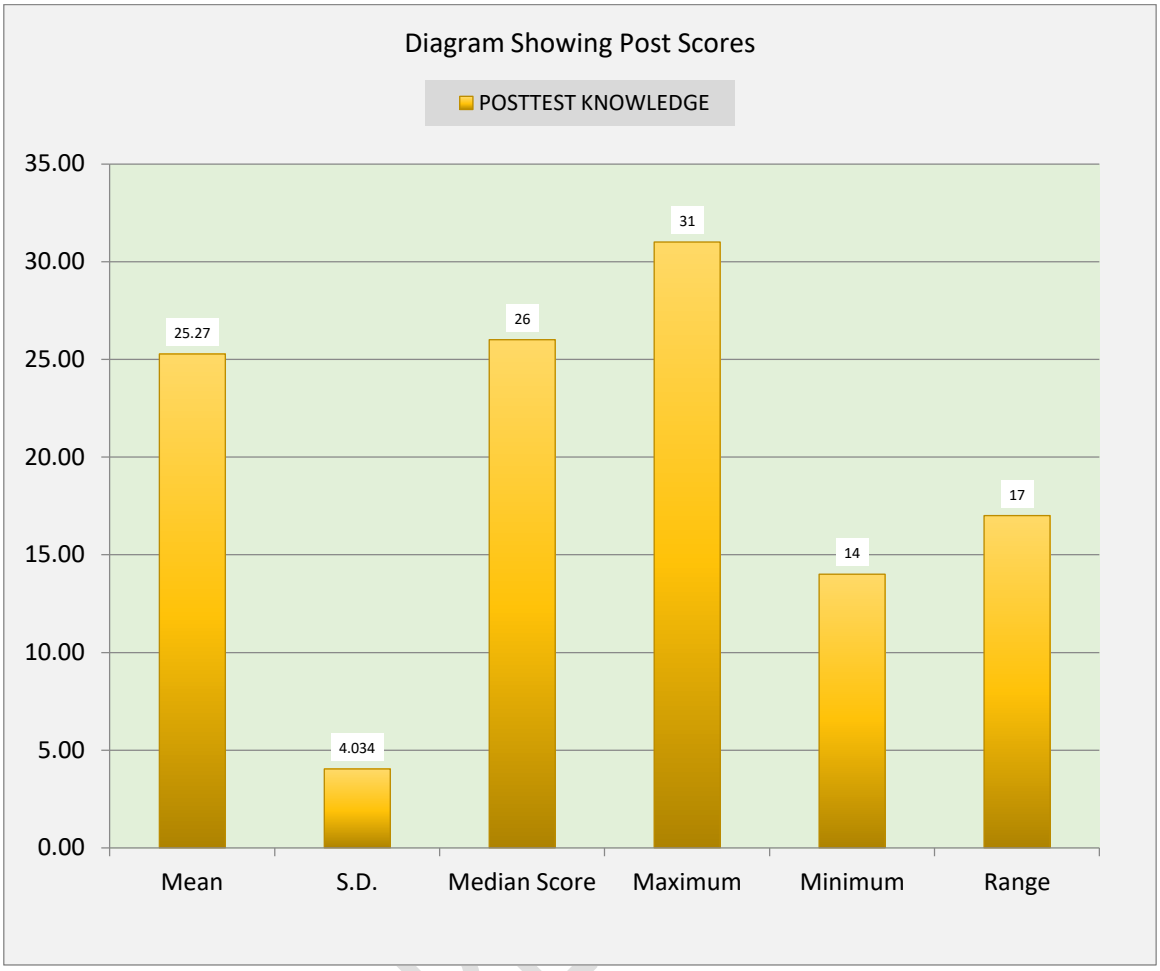


Table.4 and Fig.8,9 shows that overall post test knowledge Mean is 25.27 with SD of 4.034, the Mean %age is 72.20%. The maximum score is 31 and the minimum score is 14 (Range =17).

Table No.5: Frequency and Mean %age distribution of post test level of knowledge of subjects regarding prevention of Acne vulgaris.

CRITERIA MEASURE OF POSTTEST KNOWLEDGE SCORE	
Score Level (N= 30)	POSTTEST f(%)
Poor.(0-12)	0(0%)
Average.(13-22)	7(23.3%)
Good.(23-35)	23(76.7%)

Maximum Score=35 Minimum Score=0

Figure No.10:- Diagram showing Level of Scores

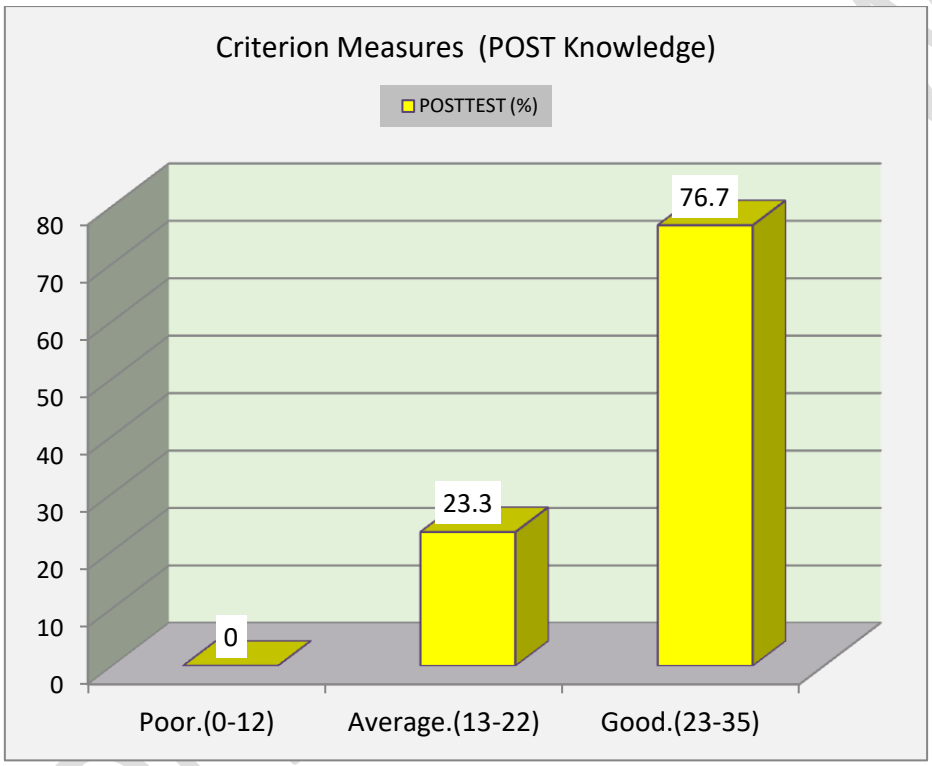


Table.5 and Fig.10 reveals that the %age distribution of level of knowledge in post test. After conducting post test none of the participants had poor knowledge, 7(23.3%) had average knowledge and 23(76.7%) had good knowledge.

Section D:- Effectiveness of educational interventions on knowledge of subjects regarding prevention of acne vulgaris.

Table No.6:- Comparison of pre and post scores knowledge of subjects regarding prevention of acne vulgaris.

N=30

Paired T Test	Mean±S.D.	Mean%	Range	Mean Diff.	Paired T Test	P value	Table Value at 0.05
PRETEST KNOWLEDGE	15.97±2.895	45.60	10-22	9.300	10.659 *Sig	<0.001	2.05
POSTTEST KNOWLEDGE	25.27±4.034	72.20	14-31				

** Significance Level 0.05 Maximum=35 Minimum=0

Fig.11. Line diagram showing individual score

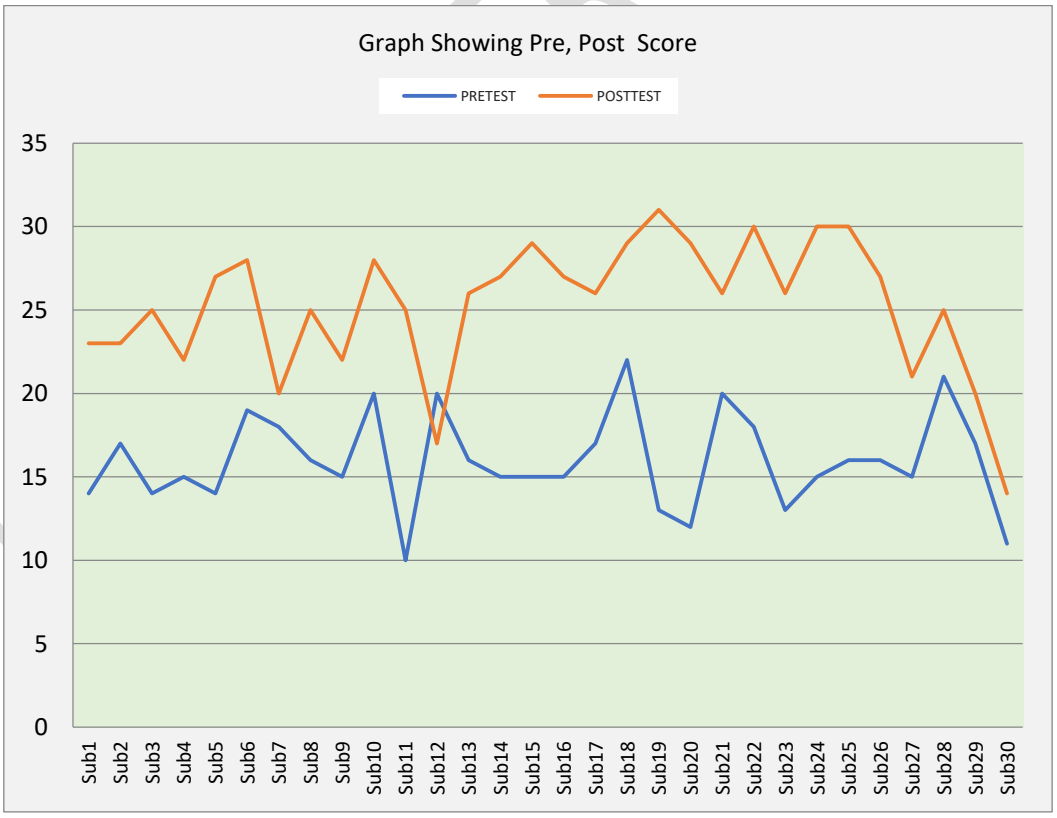


Fig. 12:- Diagram showing mean and standard deviation.

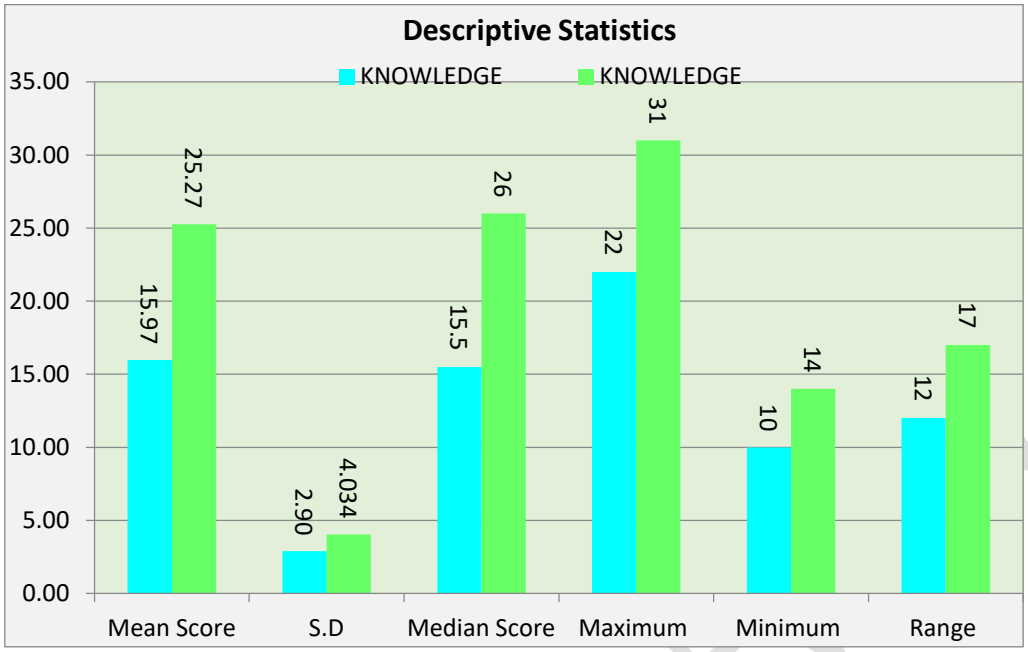


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Fig.13. Comparison of Mean and SD of pre test and post test score.

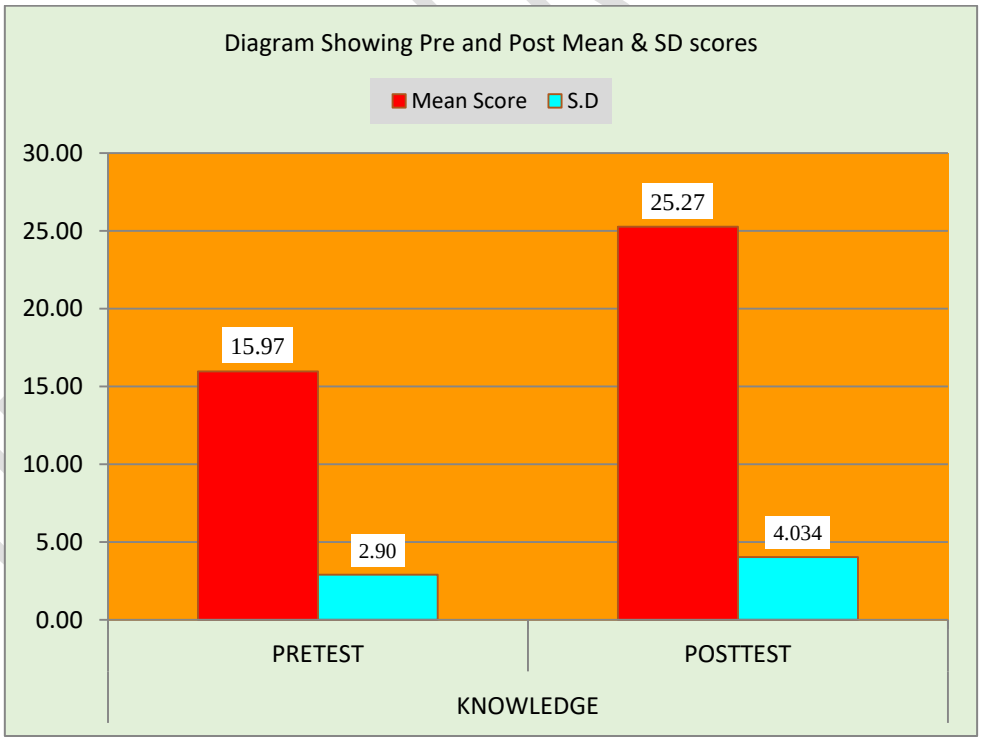


Fig.13: Comparison of Mean and SD of pre test and post test score.

HIGHLY SIGNIFICANT P<0.001

SIGNIFICANT

INFERENCES:

Calculated value of P t>t(0.05). The difference between the sample mean is significant at P 0.05 level of significance.

Table.6 shows enhancement of knowledge after educational intervention. The mean score was enhanced to 25.27 from 15.97 in pretest and the SD was increased to 4.034 from 2.895 in pretest , The Mean %age was enhanced to 72.20 from 45.60 in Pre test and overall knowledge improvement was 26.57.

Fig.13: shows that mean and SD of the post test knowledge of the study subjects that is 25.27 and 4.034 > Mean and SD of the pre test knowledge i,e 15.97 and 2.895. This shows that the educational interventions were effective .

Based on the above results we accept the hypotheses H1 which states that "there is a significant increase in Mean post test knowledge score as compared to Mean pre test knowledge score regarding prevention of Acne vulgaris among adolescents (12-19 yrs) at 0.05 level of significance.

Table No.7:- Frequency and %age distribution of pre test and post test knowledge score

CRITERIA MEASURE OF KNOWLEDGE SCORE

Score Level (N= 30)	PRETEST f(%)	POSTTEST f(%)
Poor.(0-12)	3(10%)	0(0%)
Average.(13-22)	27(90%)	7(23.3%)
Good.(23-35)	0(0%)	23(76.7%)

Maximum Score=35 Minimum Score=0

regarding prevention of Acne vulgaris:-

Fig.14 Criterion measurement (knowledge score)

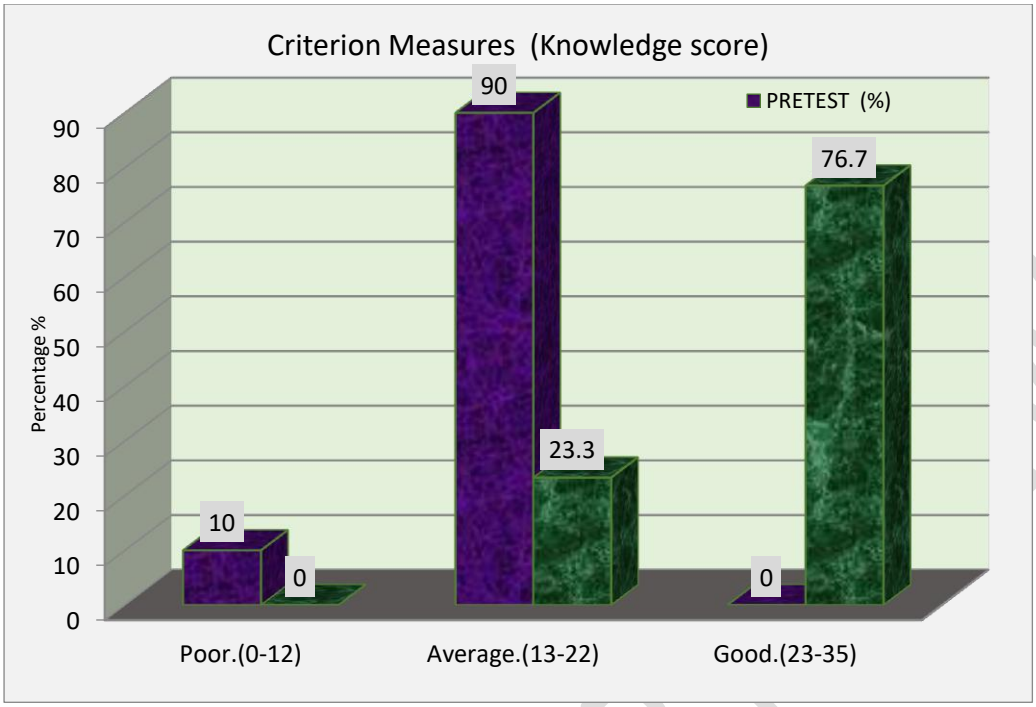


Table.7 and Fig.14 shows that 3(10%) participants had poor knowledge, 27(90%) had average knowledge and 0 (0%) participants had good knowledge in pre test. After giving educational interventions 0(0%) participants had poor knowledge, 7(23.3%) had average knowledge and 23(76.7%) had good knowledge in post test . This shows that educational interventions was effective.

Diagram Showing Individual Score Gain(Effectiveness))						
Mean%	Pretest Knowledge	Posttest Knowledge	Difference	Pretest Knowledge Score %	Posttest Knowledge Score %	Difference%
Average	15.97	25.27	9.30	45.62	72.19	26.57

Table No.8:- showing individual score gain (effectiveness).

Fig.15 showing effectiveness

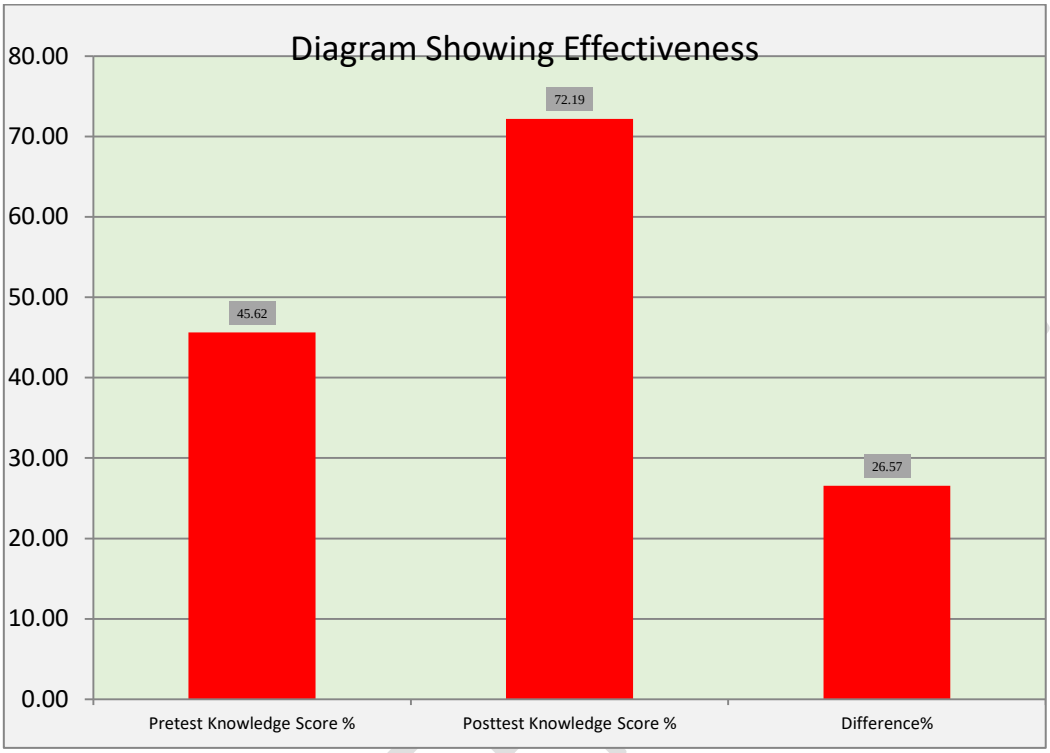


Fig.15: Effectiveness of educational interventions.

Table No.9:- Association of selected demographic variables with pre test knowledge score

This section deals with the findings related to the association between score and selected demographic variables. The chi-square test was used to determine the association between the score levels and selected demographic variables.

N=30

Association Of Pretest Knowledge Scores Of With Selected Socio-Demographic Variables.									
Variables	**Opts**	**Good**	**Average**	**Poor**	**Chi Test**	**P Value**	**df**	**Table Value**	**Result**
Age	12-15 Years	0	19	3	1.212	0.271	1	3.841	Not Significant
	15-19 Years	0	8	0					
Monthly	10-20 K	0	14	0	2.917	0.088	1	3.841	Not

Income	>20 K	0	13	3					Significant
Area of Residence	Rural	0	14	2	0.238	0.626	1	3.841	Not Significant
	Urban	0	13	1					
Gender	Male	0	9	2	1.292	0.256	1	3.841	Not Significant
	Female	0	18	1					

Table 9:- shows that the association between the level of score and socio demographic variable.

Based on the objectives used to Chi-square test used to associate the level of knowledge and selected demographic variables. The calculated chi-square values were more than the table value at the 0.05 level of significance. There is no significance association between the level of scores and other demographic variables. The calculated chi-square values were less than the table value at the 0.05 level of significance.

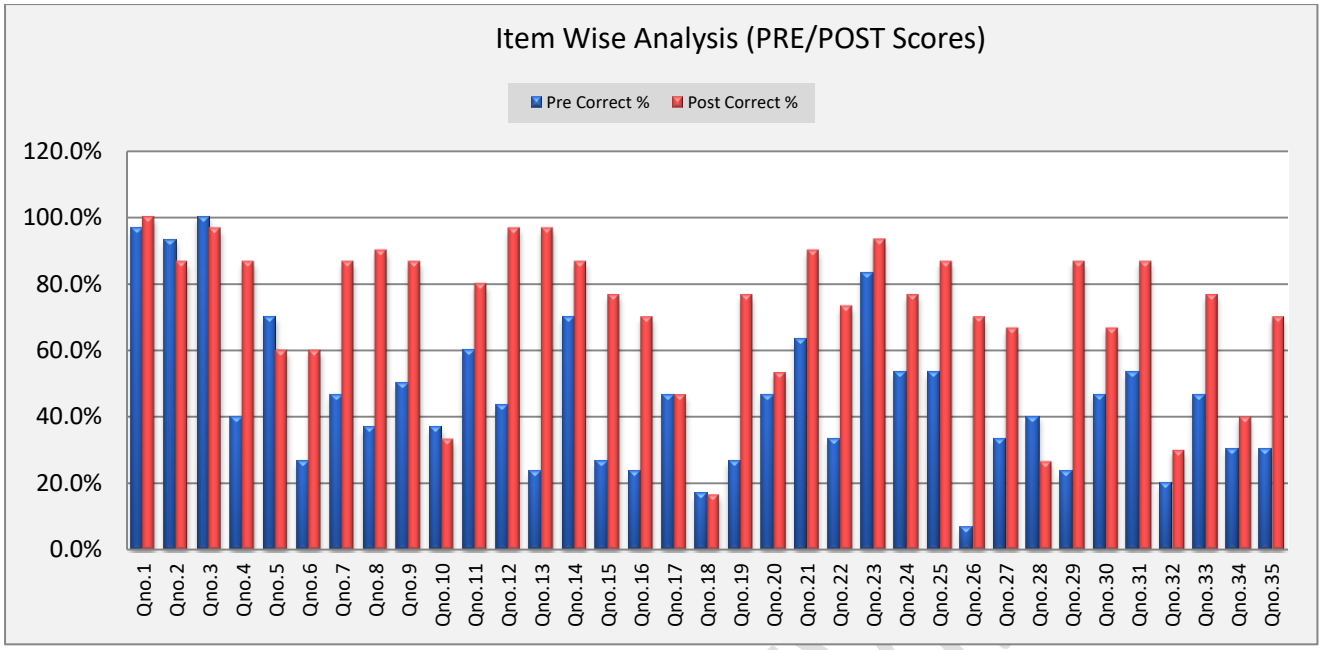
Other Optional Tables

Table No.10: Itemwise analysis (Table Showing Response in frequency percentage of Subjects according to each question)

Itemwise Analysis	Pre Correct %	Post Correct %	Pre Correct (f)	Post Correct (f)
Qno.1	96.7%	100.0%	29	30
Qno.2	93.3%	86.7%	28	26
Qno.3	100.0%	96.7%	30	29
Qno.4	40.0%	86.7%	12	26
Qno.5	70.0%	60.0%	21	18
Qno.6	26.7%	60.0%	8	18
Qno.7	46.7%	86.7%	14	26
Qno.8	36.7%	90.0%	11	27
Qno.9	50.0%	86.7%	15	26
Qno.10	36.7%	33.3%	11	10
Qno.11	60.0%	80.0%	18	24
Qno.12	43.3%	96.7%	13	29
Qno.13	23.3%	96.7%	7	29
Qno.14	70.0%	86.7%	21	26

Qno.15	26.7%	76.7%	8	23
Qno.16	23.3%	70.0%	7	21
Qno.17	46.7%	46.7%	14	14
Qno.18	16.7%	16.7%	5	5
Qno.19	26.7%	76.7%	8	23
Qno.20	46.7%	53.3%	14	16
Qno.21	63.3%	90.0%	19	27
Qno.22	33.3%	73.3%	10	22
Qno.23	83.3%	93.3%	25	28
Qno.24	53.3%	76.7%	16	23
Qno.25	53.3%	86.7%	16	26
Qno.26	6.7%	70.0%	2	21
Qno.27	33.3%	66.7%	10	20
Qno.28	40.0%	26.7%	12	8
Qno.29	23.3%	86.7%	7	26
Qno.30	46.7%	66.7%	14	20
Qno.31	53.3%	86.7%	16	26
Qno.32	20.0%	30.0%	6	9
Qno.33	46.7%	76.7%	14	23
Qno.34	30.0%	40.0%	9	12
Qno.35	30.0%	70.0%	9	21

Figure No.16.: Showing Itemwise analysis



RESULT AND DISCUSSION

Related to age, majority of the participants 22 (73.3%) are in the age group 12-15 years and 8(26.7%) are in the age group 15-19 years.

Related to residence, majority of the students 16(53.3%) reside in rural areas and 14(46.7%) reside in urban areas.

Related to gender, majority of the students 19(63.3%) are female participants and 11(36.7%) are male participants.

Related to monthly income, majority of the participants 16(53.3%) have greater than 20K monthly income and 14 (46.7%) participants have 10-20K monthly income.

Objective 1:- To assess the pre test knowledge score regarding prevention of Acne vulgaris among adolescent students (12-19yrs) of selected high schools of Kashmir.

In pre test knowledge 3 students (10%) had poor knowledge, 27 students (90%) had average knowledge and no student had good knowledge.

The overall pretest knowledge Mean was 15.97 with Mean %age of 45.60 and SD of 2.895. The maximum score obtained was 22 and minimum score obtained was 10.

The findings are consistent with the study conducted by S **Sangeeta, A Sharma, B K Aneja et al (2020)**, "A descriptive study to assess the knowledge regarding prevention of acne vulgaris among the adolescents at government model girls senior secondary school Portmore

in Shimla". They took sample size of 100 students using convenient sampling technique and the results revealed that average knowledge was 90%, good knowledge was 7% and 3% had poor knowledge about the prevention of acne.[6]

Objective 2:- To assess the post test knowledge score of adolescent students (12-19yrs) regarding prevention of Acne vulgaris in in selected high schools of Kashmir.

In post test knowledge 0 (0%) participants had poor knowledge, 7(23.3%) participants had average knowledge and 23(76.7%) had good knowledge.

The Mean was 25.27 with SD of 4.034, Mean %age was 72.20. Maximum score was 31 and minimum score was 14.

Objective 3: To find the effectiveness of educational intervention on knowledge by comparing pre test knowledge score and post test knowledge score on knowledge of adolescent students (12-19yrs) regarding prevention of acne vulgaris:-

Findings related to educational intervention of knowledge regarding prevention of acne vulgaris among adolescents (12-19yrs) of Muslim Model Educational Trust School Pulwama Kashmir depicts that improvement Mean %age 72.20% with t value 10.659 at $P< 0.05$ level of significance which shows that there is an enhancement of educational interventions.

Based on the above results it accept the hypotheses H_1 which states that there is a significant increase in mean post test knowledge score as compared to Mean pre test knowledge score regarding prevention of acne vulgaris among adolescents (12-19yrs) at 0.05 level of significance.

The findings are consistent with the study conducted by **S Gore, Krishna Raut, V Jogdan et al** 2021 "A pre-experimental study to evaluate the effectiveness of planned teaching programme on knowledge regarding Acne vulgaris and to find out the association between Post-test knowledge score with selected demographic variables among degree students studying in Milind degree colleges".The tool used was structured knowledge questionnaire. Sample size was 50.The study revealed that in pre-test (03) subjects had poor knowledge, (44) subjects had average and (03) subjects had good knowledge regarding Acne vulgaris. In post-test (04) subject had poor knowledge, (07) subjects had average and (39) subjects had good knowledge regarding Acne vulgaris. The study proved that the mean post-test knowledge score 15.42 was greater than the mean pre-test score 10.78. The mean difference between pre-test and post-test score was 4.64.[7]

<u>Objective.4</u>: To find out association between the pre test level of knowledge score with selected demographic variables (age , area of residence, socio economic status):-

Hypothesis H2 which states that "There is a significant association of Mean pre test knowledge score regarding prevention of acne vulgaris among adolescents (12-19yrs) and demographic variables (age, area of residence, socio economic status) of the subjects is rejected as there is no significant association between pre test level of knowledge score with selected demographic variables (age, socio economic status, area of residence).

Table No.11:- Descriptive score according to demographic variables (pre score)

PRETEST SCORES

Variables	Opts	Mean%	Mean	SD	N
Age	12-15 Years	45.2	15.82	3.05	22
	15-19 Years	46.8	16.38	2.56	8
Monthly Income	10-20 K	47.6	16.64	1.91	14
	>20 K	43.9	15.38	3.50	16
Area of Residence	Rural	47.3	16.56	3.20	16
	Urban	43.7	15.29	2.43	14
Gender	Male	45.7	16.00	3.55	11
	Female	45.6	15.95	2.55	19

Table No.12:-

Descriptive score according to Demographic variables. (POST SCORE)

POSTTEST SCORES

Variables	Opts	Mean%	Mean	SD	N
Age	12-15 Years	72.1	25.23	4.55	22

	15-19 Years	72.5	25.38	2.33	8
Monthly Income	10-20 K	71.0	24.86	4.15	14
	>20 K	73.2	25.63	4.03	16
Area of Residence	Rural	67.3	23.56	4.08	16
	Urban	77.8	27.21	3.07	14
Gender	Male	63.6	22.27	4.17	11
	Female	77.1	27.00	2.81	19

Conclusion

The present study assessed the knowledge of adolescent students (12-19yrs) regarding prevention of acne vulgaris . The overall pre test score shows that 10 % students had poor knowledge, 90% students had average knowledge and 0% students had good knowledge.

Educational interventions were given to enhance the knowledge to enhance the knowledge of students which is very essential for prevention at the earliest stage. The post test shows that 0 students had poor knowledge, 23.3% had average knowledge and 76.7% had good knowledge. The results revealed that educational interventions were very informative and it would help them to get aware about prevention of acne vulgaris, Hence educational interventions were instructionally effective, appropriate and feasible.

Nursing implications

The finding of the study have implication in the following areas:

1. **Nursing education**: The present study emphasizes enhancement in the knowledge of adolescents regarding prevention of acne vulgaris. In order to achieve this, the educational background of nurses should equip him or her with the knowledge necessary to function as a health educator. Health education is the major key to improve knowledge. Nursing colleges, teachers and students should come forward and organize education programs in for various community settings and in various educational institutions.
2. **Nursing administration**: Nurses are challenged to play the role of efficient administrators as well as practitioners. Since the study revealed that adequacy of knowledge of adolescents, so administration in both government and private sectors should take initiative actions to provide knowledge to adolescents regarding prevention of acne vulgaris. Nurses must take up responsibility to publish booklets,

pamphlets, organize awareness programs and camps regarding prevention of acne vulgaris (Primary, secondary, tertiary).

3. **Nursing practice**: Nurses are the key persons of the health team who play a measure role in the health promotion and maintenance. Nursing is the practicing profession, so the researcher generally integrates findings into practice. The nurses important role is a health educator who can focus on mostly health prevention both in hospital as well as in community settings.

4. **Nursing research:** The importance of research in nursing is to build a body of knowledge as it is an evolving profession. The findings of the present study serves the as the bases for the professionals and the students to conduct further studies. The generations of the study results can be made by the replication of the study. In Kashmir only few research studies have been done on effectiveness of educational interventions on knowledge regarding prevention of acne vulgaris among adolescents. All nursing institutes must join hands to provide scientifically listed material of program to evolve a time based plan for the best knowledge.

Limitations

- This study is limited to those adolescent students who are studying in Muslim Model Educational Trust School Pulwama.
- This study is limited to age group 12 to 19 years.
- The sample size of the study is 30 students.

Recommendations

1. A similar study can be conducted on nursing students of different nursing institutions of Kashmir to generalize the results.
2. A self instructional module can be developed rather than educational interventions.
3. A similar study can be conducted on large sample of adolescent students (12-19yrs) to generalize the results.
4. A similar kind of project can be done by comparing the knowledge among the different schools of J and K.

5. Separate study can be done on boys and girls to know their knowledge regarding prevention of acne vulgaris.
6. A module may be framed for the health care workers and adolescents for training them with innovative knowledge regarding prevention of acne vulgaris.

Ethical consideration

The research group had taken ethical clearance from the institutional ethical committee of Islamic University Of Science And Technology Awantipora under the protocol number RP 030/2021. Permission was taken from the Muslim Model Education Trust School Pulwama to conduct research study. Also informed consent was taken from students before data collection.

REFERENCES

1. Rasool,Insha and shahid,syed.(2021).effectiveness of structured teaching program on knowledge regarding acne among adolescent students of caset experimental higher secondary school Srinagar, Kashmir: a pre experimental study. 10.13140/rg.2.2. 34863.87205,
2. Yaseen U, Hassan I. Prevalence of various skin disorders in school going children of Kashmir valley of North India: A cross-sectional study. Indian Journal of Paediatric Dermatology. 2013 Sep 1;14(3):67.
3. L.Hefez , J.Micallef , A.Revah Levy,B. Falissard, E. Jouve ,B. Dreno et al. First use of the adolescent depression Rating Scale (ARDS)in the management of young people with severe acne treated with isotretinoin: A pilot study of an active monitoring of depressive disorders by dermatologists. Clinical and Experimental Dermatology /Vol(47), Issue(4), p. 709-716. wiley;2021Dec, https://doi.org/10.1111/ced.15039.
4. Tan JK, Bhate K. A global perspective on the epidemiology of acne. British Journal of Dermatology. 2015 Jul;1:3-12. doi:10.1111/bjd.13462.

5. Elsaie ML, Hormonal treatment of acne vulgaris: an update. Clinical, cosmetic and investigational dermatology. 2016;9:241-248.doi: 10.2147/CCID.S114830

6. M Rani, S Sharma, P Kashyap, U Mehta, A descriptive study to assess the knowledge regarding prevention of acne vulgaris among the adolescents at government model girls senior secondary school Portmore in Shimla, Vol(10), Issue (6), ISSN 2321, IJESC, June 2020

7. S Gore, Krishna Raut, V Jogdan et al 2021, effectiveness of planned teaching programme on knowledge regarding Acne vulgaris.Vol (4), Issue(1) International Journal of Medical Surgical Nursing, 2021.