

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

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## 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.

**Methods:** 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.

*Keywords: Acne vulgaris; knowledge; educational intervention.*

## 1. INTRODUCTION

“Acne vulgaris is a chronic inflammatory disease - rather than a natural part of the life cycle as colloquially viewed - of the pilosebaceous unit (comprising the hair follicle, hair shaft and sebaceous gland) and is among the most common dermatological conditions worldwide” [1].

“Acne vulgaris is a common skin condition associated with multiple factors. Although mostly presenting alone, it can likewise present with

features of hyperandrogenism and hormonal discrepancies. Of note, hormonal therapies are indicated in severe, resistant-to-treatment cases and in those with monthly flare-ups and when standard therapeutic options are inappropriate” [2].

“In 2015, acne affected approximately 633 million people globally, making it the eighth-most common disease worldwide. Acne commonly occurs in adolescence and affects an estimated 80–90% of teenagers in the Western world. Some rural societies report lower rates of acne

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than industrialized ones. Children and adults may also be affected before and after puberty. Although acne becomes less common in adulthood, it persists in nearly half of affected people into their twenties and thirties, and a smaller group continues to have difficulties in their forties" [3].

"Acne vulgaris is a long-term skin disease that occurs when hair follicles are clogged with dead skin cells and oil from the skin. It is characterized by blackheads or whiteheads, pimples, oily skin, and possible scarring. It primarily affects areas of the skin with a relatively high number of oil gland, including the face, upper part of the chest, and back" [4].

"About 20% of the affected individuals develop severe acne, which results in scarring. Some races appear to be more affected than others. Asians and Africans tend to develop severe acne, but mild acne is more common in the white population. In general, populations with darker skin also tend to develop hyperpigmentation. Acne can also develop in neonates but in most cases, resolves spontaneously" [5].

"Acne is estimated to affect 9.4% of the global population. Epidemiological studies have demonstrated that acne is most common in postpubescent teens, with boys most frequently affected, particularly with more severe forms of the disease. Recent general and institutional studies from around the world have shown that the prevalence of acne is broadly consistent globally" [6].

"The national, multicentre prospective study enrolled a random sample of dermatologists treating adolescents. An algorithm including ADRS score and its changes between consecutive visits was used. At each visit, dermatologists rated their satisfaction with ADRS and its ease of use, while patients rated the acceptability of the ADRS. In total, 70 dermatologists used the algorithm for 1227 visits of 283 adolescents receiving isotretinoin. Of these 70 dermatologists, 80.8% were satisfied/very satisfied with the ADRS, 82.7% considered the use of the ADRS in clinical practice to be easy/very easy and 75% considered that the ADRS enabled them to discuss more easily the risk of depression with their patients. For the patients, acceptability of the ADRS was considered good by 93.8%" [7].

"According to the Global Burden of Disease (GBD) study, acne vulgaris affects ~85% of young adults aged 12–25 years. Acne consistently represents the top three most

prevalent skin conditions in the general population, as found in large studies within the UK, France, and the USA. As of now, the rising incidence of acne vulgaris in late adolescence is a global issue; however, it is unknown whether this increase is a result of higher prevalence of the Western diet, earlier onset of puberty, genetic drift, or a byproduct of unknown environmental factors" [8].

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 (8<sup>th</sup> most common disease) with an estimated global prevalence of 94% and highest occurrence in adolescents (85%) between age group 12 and 24. 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. In J&K the prevalence rate of acne disorders is 19.2% which include acne vulgaris, trunkal acne and post acne scarring 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 adolescents [9].

"A cross-sectional study was conducted in secondary schools in Alexandria, Egypt. A total of 787 students were selected using multistage stratified random sampling. Data was collected using a self-reported questionnaire, and clinical examination was performed. Severity of acne and its impact on QoL and self-esteem were assessed using the Global Acne Grading System (GAGS), Cardiff Acne Disability Index (CADi), and Coopersmith self-esteem scale, respectively. Prevalence of self-reported acne was 34.7%. Females significantly reported acne more frequently than males (39.1% vs. 30.3%,  $p = 0.009$ ). Prevalence of clinically confirmed acne was 24.4%, with higher rates among females (28.6%) than males (20.2%,  $p = 0.006$ ). The majority of students had mild acne (75.5%). CADi showed that 11.4% had severe disability. A significant medium positive correlation between GAGS and CADi was found ( $r = 0.338$ ,  $p < 0.01$ ). Among acne group, low self-esteem was more prevalent among females (67.0%) than males (45.0%,  $p = 0.004$ )" [10].

"A cross-sectional study was conducted among all female secondary school students in 3 randomly selected schools, in Arar city (Saudi Arabia). The participants were clinically examined by a dermatologist to identify acne cases. Dermatological quality of life of acne

cases were assessed using Dermatology Life Quality Index (DLQI). The overall prevalence of Acne vulgaris was 14.3%. It was not significantly affected by age, marital status or nationality of participants. Post inflammatory hyperpigmentation and scarring were detected in 11.6% and 8.7% respectively. Twenty nine percent of the cases had no impact; 56.3% had small to moderate impact and 14.5% had large effect. The psychological impact was significantly increased with increased severity, presence of acne lesions on face and other sites, presence of hyper pigmentation and scarring ( $p=0.001$ )” [11].

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.

### 1.1 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.

### 1.2 Objectives of the Study

1. To assess the pretest knowledge score regarding prevention of acne among adolescent students (12 to 19 years) of selected high schools of Kashmir.
2. To assess the post test knowledge score of adolescent students (12-19 years) regarding prevention of acne vulgaris.
3. 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.

4. To find out association between the pretest level of knowledge score with selected demographic variables (age, area of residence, socioeconomic status).

## 2. MATERIALS AND METHODS

Quantitative Pre experimental 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.

### 2.1 Demographic Variables

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

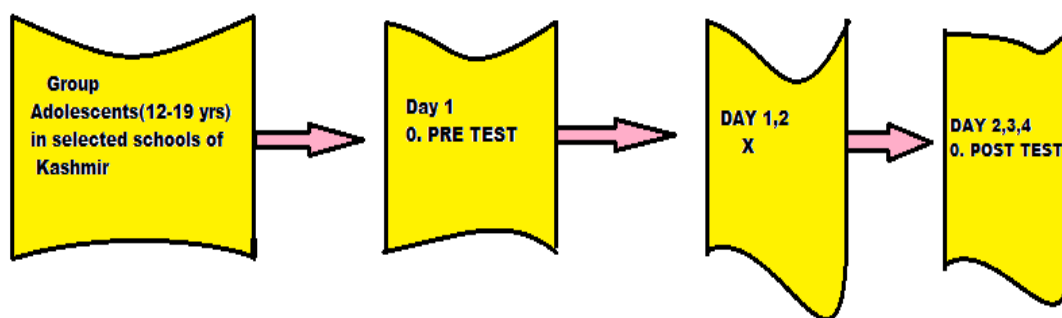
### 2.2 Selection and Development of Tool

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.

### 2.3 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.



**Image 1. Research framework**

Key:  $O_1$ = Knowledge test before educational intervention;  $X$ = Intervention.  
 $O_2$ = Knowledge test after educational intervention

**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

## 2.4 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, Principal Syed Mantaqi Memorial College of Nursing and Medical Technology, IUST Awantipora.

## 2.5 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 2<sup>nd</sup> 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	Time
	26-11-2021	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

## 2.6 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:

## 2.7 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.

## 2.8 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 questionnaire on knowledge.

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

## 2.9 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
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**Section-A:** Socio-demographic variables of subjects.

**Table 1. Frequency and percentage distribution of socio-demographical variables**

Variables	Category	Percentage	Frequency
Age	12-15 Years	73.3%	22
	16-19 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

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

**Table 2. Frequency and % age distribution of pre test level of knowledge of subjects regarding prevention of Acne vulgaris**

Criteria measure of pretest knowledge score	PRETEST f (%)
Score Level (N= 30)	
Poor.(0-12)	3(10%)
Average.(13-22)	27(90%)
Good.(23-35)	0(0%)

*Maximum Score=35; Minimum Score=0*

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

## 2.10 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 E:** Association between the pretest level of knowledge score with selected demographic variables (age, area of residence, socioeconomic status).

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

**Table 3. Frequency and %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*

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

**Table 4. Comparison of pre and post scores knowledge of subjects regarding prevention of acne vulgaris**

Paired T Test	Mean±S.D.	Mean%	Range	Mean Diff.	N=30		
					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*

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

**Section E:** Association between the pretest level of knowledge score with selected demographic variables (age, gender, income, area of residence).

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.

**Table 5. Association of selected demographic variables with pre test knowledge score**

					N=30				
Association of pretest knowledge scores of with selected socio-demographic variables									
Variables	Category	Good	Average	Poor	Chi Test	P Value	df	Table Value	Result
	15-19 Years	0	8	0					
Monthly Income	10-20 K	0	14	0	2.917	0.088	1	3.841	Not Significant
	>20 K	0	13	3					
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					

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.

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 16-19 years.

### 3. DISCUSSION

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 [12].

The findings are consistent with the study conducted by Magdy A. Darwish and Ahmed A. Al-Rubaya. A cross-sectional study was used to assess the knowledge, beliefs, and psychosocial effect of acne vulgaris among acne patients attending referral dermatology clinic in Al-Khobar Hospital. The data were collected by using a structured self-administered questionnaire. The result shows that 58.33% of sample have poor knowledge about factors that affect acne vulgaris [13].

**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.

The findings are consistent with the study conducted by Dayalal Patidar, Kaushal Patidar, Hiral Dabhi. A Pre experimental pre- test post-test research design approach was used in selected high schools of Mehsana city. Data was collected from 100 Adolescents. In the pretest mean was 9.99 and posttest mean was 18.15. The pretest standard deviation was 3.01 and the posttest standard deviation was 3.22. "t" value was 42.27. There is no significant association between the knowledge and selected demographic variables (age, gender, income, area of residence) [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<sub>1</sub> 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.

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 [15].

The findings are consistent with the study conducted by Insha rasool, sayed shahid. A pre-experimental one group pre test and post-test design was used for the study in order to evaluate the effectiveness of structured teaching programme on knowledge regarding acne among adolescent students at Caset Experimental Higher Secondary School Srinagar, Kashmir. Sample size was 60 students. The result shows that 66% study subjects had moderate knowledge and 33% of study subjects had inadequate knowledge. Where as in post-test majority of the study subjects (97%) % had adequate knowledge and least number of study

subjects (3%) had moderate knowledge regarding acne. This indicates that structured teaching programme was effective in enhancing the knowledge of adolescent students regarding acne [16].

**Objective 4: To find out association between the pre test level of knowledge score with selected demographic variables (age, gender, income, area of residence):-**

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, gender, income, area of residence) of the subjects is rejected as there is no significant association between pre test level of knowledge score with selected demographic variables (age, gender, income, area of residence).

**Table 6. Descriptive score according to demographic variables (pre score)**

<b>Pretest Scores</b>					
<b>Variables</b>	<b>Category</b>	<b>Mean%</b>	<b>Mean</b>	<b>SD</b>	<b>N</b>
Age	12-15 Years	45.2	15.82	3.05	22
	16-19 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 7. Descriptive score according to Demographic variables (POST SCORE)**

<b>Posttest Scores</b>					
<b>Variables</b>	<b>Category</b>	<b>Mean%</b>	<b>Mean</b>	<b>SD</b>	<b>N</b>
Age	12-15 Years	72.1	25.23	4.55	22
	16-19 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

#### **4. CONCLUSION**

The present study assessed the knowledge of adolescent students (12-19 yrs) 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.

## 5. 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.

## 6. 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.

## 7. 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 APPROVAL AND CONSENT

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.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

## REFERENCES

1. Sara Moradi Tuchayi, Evgenia Makrantonaki, Ruta Ganceviciene, Clio Dessinioti, Steven R Feldman, Christos C Zouboulis, Acne Vulgaris. 2015;1:15029. DOI: 10.1038/nrdp.2015.29.
2. Elsaie ML. Hormonal treatment of acne vulgaris: An update. Clinical, cosmetic and investigational dermatology. 2016;9:241-248. DOI: 10.2147/CCID.S114830
3. Acne - Wikipedia.
4. Ketaki Bhate, Williams HC. Epidemiology of acne vulgaris, December 2012, British Journal of Dermatology. 2012;168(3). DOI:10.1111/bjd.12149
5. Amita H. Sutaria, Sadia Masood, Joel Schlessinger Acne Vulgaris. National Library of Medicine: August 9, 2021.
6. Tan JK, Bhate K. A global perspective on the epidemiology of acne. British Journal of Dermatology. 2015;1:3-12. DOI: 10.1111/bjd.13462.
7. Hefez L, Micallef J, Revah Levy A, Falissard B, Jouve E, Dreno B, 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. 2021;47(4):709-716. Wiley. Available: <https://doi.org/10.1111/ced.15039>
8. Darren D. Lynn, Tamara Umari, Cory A. Dunnick, Robert P. Dellavalle, The epidemiology of acne vulgaris in late adolescence. 2016;7:13–25.
9. 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;14(3):67.
10. Kholoud Tayel, Medhat Attia, Naglaa Agamia, Noha Fadl, Acne vulgaris: prevalence, severity, and impact on quality of life and self-esteem among Egyptian adolescents. DOI: 10.1186/s42506-020-00056-9
11. Manal Saeed Alanazi, Sabry Mohamed Hammad, Amal Elwan Mohamed Prevalence and psychological impact of Acne vulgaris among female secondary school students in Arar city, Saudi Arabia. 2018;10(8):7224–7229. DOI: 10.19082/7224
12. Sangeeta S, Aditya S, Barjinder A, Prabha K. 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. 2020;10(6). ISSN 2321, IJESC.
13. Magdy A. Darwish, Ahmed A. Al-Rubaya, Knowledge, Beliefs, and Psychosocial Effect of Acne Vulgaris among Saudi Acne Patients; Dec. 29, 2013. DOI: 10.1155/2013/929340
14. Dayalal Patidar, Kaushal Patidar, Hiral Dabhi. Effectiveness of Structured Teaching Programme on knowledge regarding prevention of Acne Vulgaris among Adolescents. 2021;9(1). DOI: 10.5958/2454-2660.2021.00012.0
15. Gore S, Krishna Raut, Jogdan V, et al. Effectiveness of planned teaching programme on knowledge regarding Acne vulgaris. International Journal of Medical Surgical Nursing. 2021;4(1).
16. Insha R, Shahid S. Effectiveness of structured teaching programme on Knowledge Regarding Acne Among Adolescent Students of Caset Experimental Higher Secondary School, Srinagar, Kashmir: A Pre-Experimental Study. 2021;9(9). ISSN: 2320-2882 IJCRT2109190 DOI:10.13140/RG.2.2.34863.87205