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RESEARCH ARTICLE

A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE REGARDING COVID 19 AND ITS PREVENTIVE MEASURES AMONG ADOLESCENTS IN SELECTED SCHOOL OF DEHRADUN

Nitika Kaushal, Suhail Akthar, Himanshu Singh, Diksha Kotla, Ankita Pundir and Sikha Pal
Associate Professor BSc (Nursing) 4th Year Students.

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Abstract

The world has taken unprecedented and stringent preventive and precautionary measures against COVID 19 to control its spread safeguard citizens and ensure their well being. Public adherence to preventive measures is influenced by their knowledge and attitude towards COVID 19. Following the WHO declaration, countries around the globe, including India have been leaning on response plans to respond to the pandemic and contain the virus. Indian government has been vigilantly monitoring the situation and taking specific measures that are in line with the WHO guidelines in dealing with the outbreak.

Objectives: To assess the knowledge regarding covid-19 & its preventive measures among adolescents. To find out the association between the level of knowledge regarding covid-19 & its preventive measures with the selected demographic variable.

Approach: The research approach adopted for present research is quantitative research aimed assessing the knowledge and preventive measures taken by adolescents during COVID19 in selected school of Dehradun, Uttarakhand. The research design used for this study is descriptive design. This study was one phase collected by self administrating questionnaire method to assess the knowledge and preventive measures taken by adolescents during COVID 19 in selected school of Dehradun, Uttarakhand.

Result

Result related to level of knowledge regarding COVID 19 among adolescents. -11% of samples were having good knowledge, 82% samples were having average knowledge and 7% samples were having poor knowledge.

Preventive measures taken among adolescents for COVID 19. - It was found through the conducted study that there is very association between level of knowledge and selected demographic variables. The result findings exhibited that the one variable that is level of education at 0.004 level of significance had statistical significant association with the knowledge score

Conclusion: The purpose of the present study was to find out the knowledge and preventive measures taken by adolescents during COVID 19 and to find out the association between knowledge regarding COVID 19 and its preventive measures with the selected demographic variable.

..... Introduction:-

Prepare And Prevent Don't Repair And Repent

Corona Virus disease 2019 (COVID-19) is a highly transmittable and pathogenic viral infection [1–3]. The World Health Organization (WHO) declared that COVID-19 is a global pandemic caused by SARS-Cov-2 with a potential to spread frequently and rapidly from person to person through droplets on 11 March 2020. COVID-19 has multi-faceted negative effects on both public health and societal life, thereby attracting the attention of all nations. As a result, understanding the disease is an ongoing process and its clinical features are highly variable from mild to severe and fatal respiratory diseases.

Globally, according to the Situational Report-114 of the WHO, 4.17 million COVID-19 confirmed cases and 3,000 deaths from the infection were recorded. The COVID-19 pandemic has introduced changes in adolescents' routines. Physical and social distancing from loved ones, avoiding in-person gatherings, wearing masks in public settings, and a drop in academic effort have resulted in difficulties for adolescents (Centers for Disease Control and Prevention (CDC), 2020). Unfortunately, the COVID-19 infection rate among adolescents is constantly increasing, and as this group is largely asymptomatic, they are likely to remain undiagnosed and spread it to others (Dong et al., 2020). Adolescents' COVID-19 infection has a significant impact, as it can spread to local communities through transmission within schools (Choi et al., 2015). Secondary transmission of COVID-19 infection can occur in school settings when preventive measures are not followed (Stein-Zamir et al., 2020)

Need Of Study-

Emerging evidence suggests that the health effects of COVID-19 infection tend to be less strong in children, including adolescents, than in adults. Still, youth populations contribute to the spread of COVID-19 through school-based outbreaks and household transmission. Because some studies identified youth as a population with potentially low compliance with COVID-19 infection preventive measures. It is imperative to understand which youth were early adopters of the preventive measures, and what drove them to adopt the measures. Recent studies showed the youth's adherence to preventive measures is weaker. The degree of knowledge about the epidemic also drives individual adoption of preventive measures, with knowledge about the transmission and gravity of the disease factors motivating adults' behaviours.

Problem Statement

“A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE REGARDING COVID 19 AND ITS PREVENTIVE MEASURES AMONG ADOLESCENTS IN SELECTED SCHOOL OF DEHRADUN.”

Objectives:-

The Objectives Of This Study Are:-

1. To assess the knowledge regarding covid-19 & its preventive measures among adolescents.
2. To find out the association between level of knowledge and the selected demographic variable.

Operational Definitions

Descriptive:

Describing something, especially in a detailed, interesting way.

Assess:

To determine the rate or value of something. Here it refers to make judgement about the prevention and knowledge level of adolescents regarding COVID-19.

Knowledge:

Facts, information and skills acquired through experiences or education. Here it refers to the assessments of knowledge about COVID 19 among adolescents in selected school of Uttarakhand [Dehradun].

COVID-19:-

An acute respiratory illness in humans caused by corona virus, capable of producing severe symptoms in some cases death. It was originally identified in china in 2019 and became pandemic in 2020.

Prevention:

The action of stopping something from happening or arising.

Adolescents:

Adolescence is the phase of life between childhood and adulthood, from ages 10-19. [WHO]

Assumptions

- 1-Maximum adolescents will have adequate level of knowledge regarding COVID-19.
- 2- We assume that most of the adolescents would have taken the following precautionary measures such as hand washing, social distancing, use of mask, sanitizers etc.

Hypothesis

H1- There will be significant association between level of knowledge and selected demographic variables.

H0- There will be not significant association between level of knowledge and selected demographic variables.

Delimitations Of The Study

1. The study is only limited to adolescents.
2. This study is limited to those who are present at the day of data collection.
3. This study is covering only the selected school at Dehradun.

Research Methodology:-

Research methodology is a way to systematically solve the research problem.

Research Approach

For the present study we have used descriptive approach.

Research Design

For this study we have selected a pre test-post test research design as the present study to assess the knowledge regarding COVID- 19 and its preventive measures among adolescents.

Variables Of The Study

In this study dependent variables is covid-19 & its preventive measures [dependent on the level of knowledge] taken by adolescents. In this study the independent variables are demographic variables like for example: age, gender, occupation, education etc.

Setting of the study.

This study was conducted in selected school of Sahaspur, Dehradun, Uttarakhand.

Population

In this present study the population is Adolescents in selected school of Sahaspur, Dehradun.

Sample Size

Sample size of the present study is 100 samples of adolescents.

Sampling Technique

In this present study non probability convenient sampling technique was used.

Data Collections Tools And Techniques Description Of Tools

SECTION A –

Sample characteristics of student including –Age, area of residence, source of information, family income and education of mother.

SECTION B

It consists of questionnaire related to the knowledge regarding COVID 19 and its preventive measures among adolescents. 20 questions are included. 10 questions related to the knowledge regarding COVID19 AND 10 questions regarding the preventive measures.

Criteria For Scoring

Score For Level Of Knowledge Regarding Covid -19

S.NO	LEVEL OF KNOWLEDGE	NO.
1	Good knowledge	8-10
2	Average knowledge	5-7
3	Poor knowledge	1-4

Validity Of Tool

The tools were validated by team of experts in the field of nursing. Necessary changes were done on the basis of experts suggestions and tool were finalised.

Reliability

The Reliability of the tool was found to be ($r=0.71$) for knowledge questionnaire.

Ethical Consideration

Written permission was obtained from the principal of selected school sahaspurdehradun.

Data Collection Procedure

A data is the gathering of information needed to address a research problem. It took 3 days to collect the data from the study samples.

Analysis And Interpretation Of Data

Analysis and interpretation of data involve the computation of the certain measures along with searching for pattern of relationship that exist among the data groups.

Presentation Of The Data

The data was presented under following sections –

SECTION –A

Frequency and percentage distribution of demographic variables among adolescents.

SECTION –B

1. Frequency and percentage distribution of level of knowledge among samples.
2. Frequency and percentage distribution of preventive measures among adolescents.

SECTION – C

To find out the association between the level of knowledge and selected demographic variable.

SECTION – A

Table1:- Shows The Frequency And Percentage Distribution Of Demographic Variables Among Study Samples.

Age:

according to the collected data, 30 % samples belong to the age group of 13 - 14 years, 58 % belongs to the age group of 15 to 16 years, and 12 % belongs to the age group of 17 to 18 years.

Area Of Residence:

According to the data 88% belongs to the rural area while 12% belongs to urban area.

Source Of Information:

21% population got the information from TV, 19% got the information from newspaper, and 42% got the information from internet whereas 18% got the information from friends and family.

Family Income:

According to the data 32% have income of 5000, 29% have income of 5000 to 10000, 19 % have income of 10000 to 20000 and 20% have income of > 20000.

Education Of Mother:

According to the data, 65% mothers have no formal education, 26% have primary education, 8 % have secondary education and 1 % was graduated.

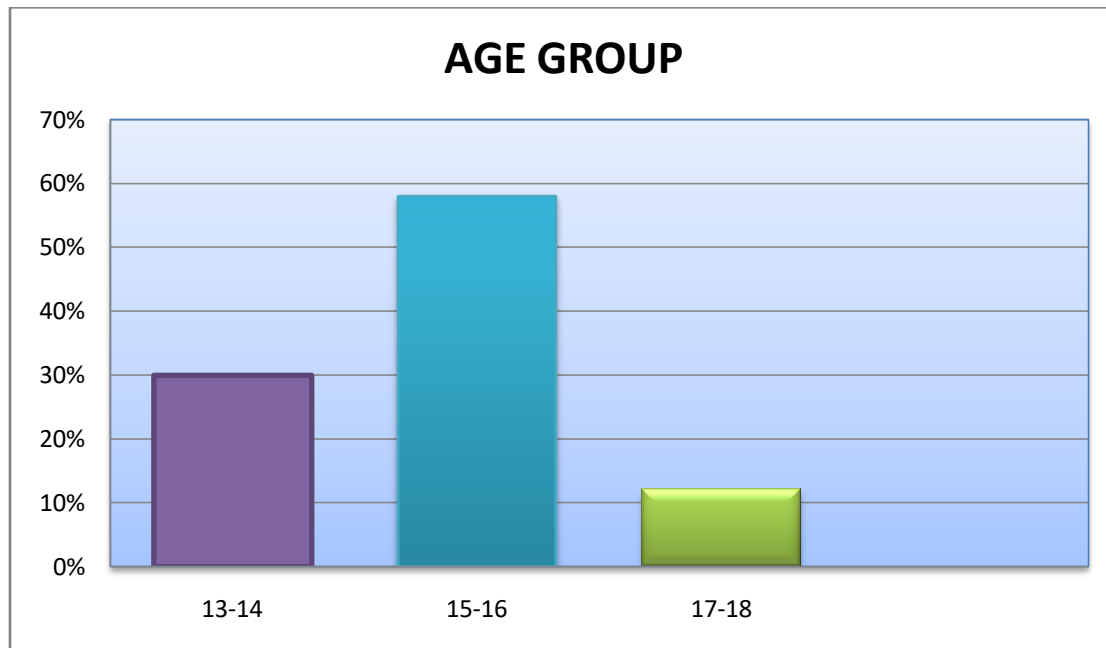


Figure 3:- Cylindrical diagram shows percentage distribution of samples according to their age.

According to the collected data, 30 % samples belong to the age group of 13 - 14 years, 58 % belongs to the age group of 15 to 16 years, and 12 % belongs to the age group of 17 to 18 years.

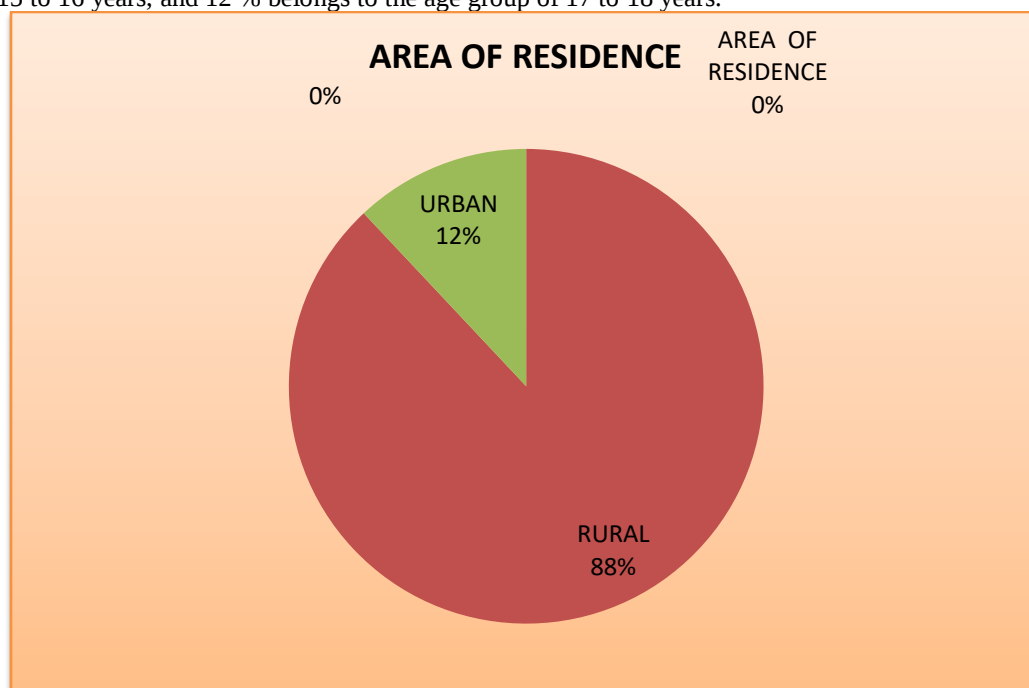


Figure 4:- Pie diagram shows percentage distribution according to area of residence.

According to the data 88% samples belong to rural area whereas 12% belongs to urban area.

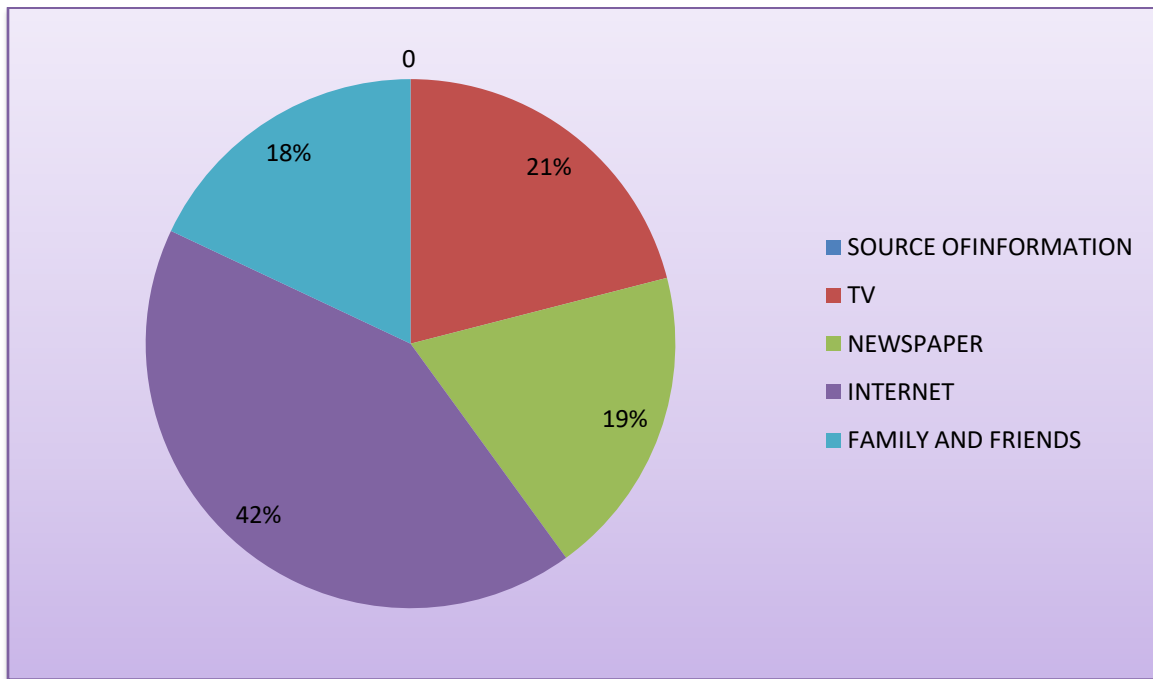


Figure 5:- Pie diagram shows the percentage distribution of source of information.

21% Samples have TV as their source of information, 19% have newspaper as their source of information, 42% have internet as their source of information whereas 18% have family and friends as their source of information.

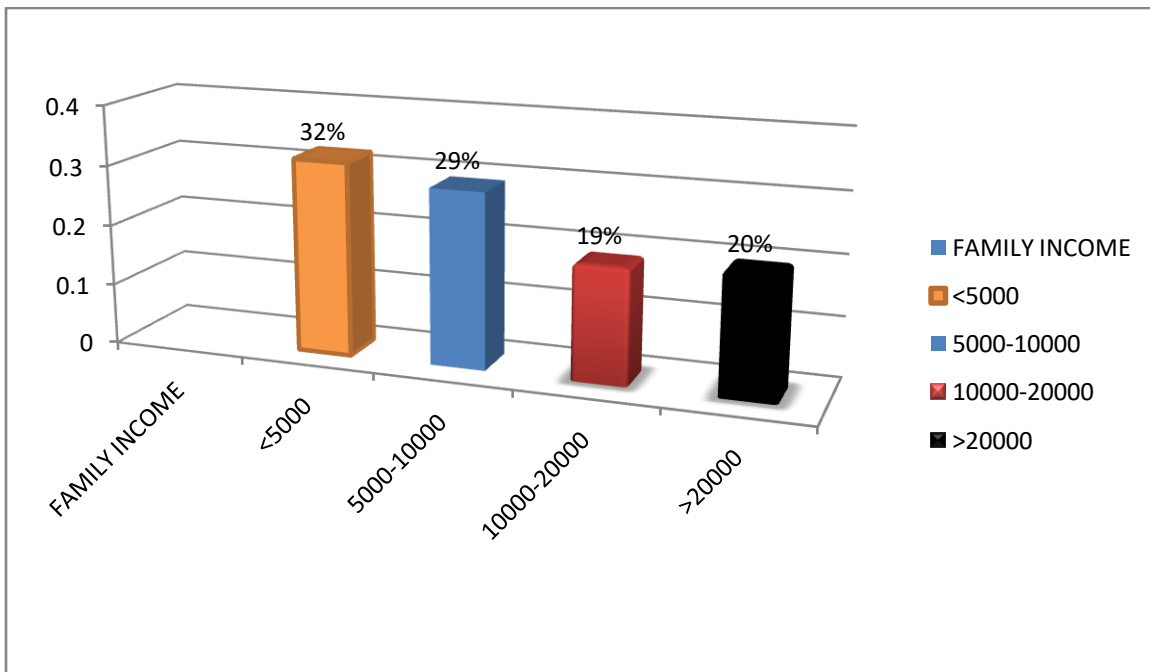


Figure 6:- Bar diagram shows percentage distribution of samples according to the family needs.

According to the data 32% have income of 5000, 29% have income of 5000 to 10000, 19 % have income of 10000 to 20000 and 20% have income of > 20000.

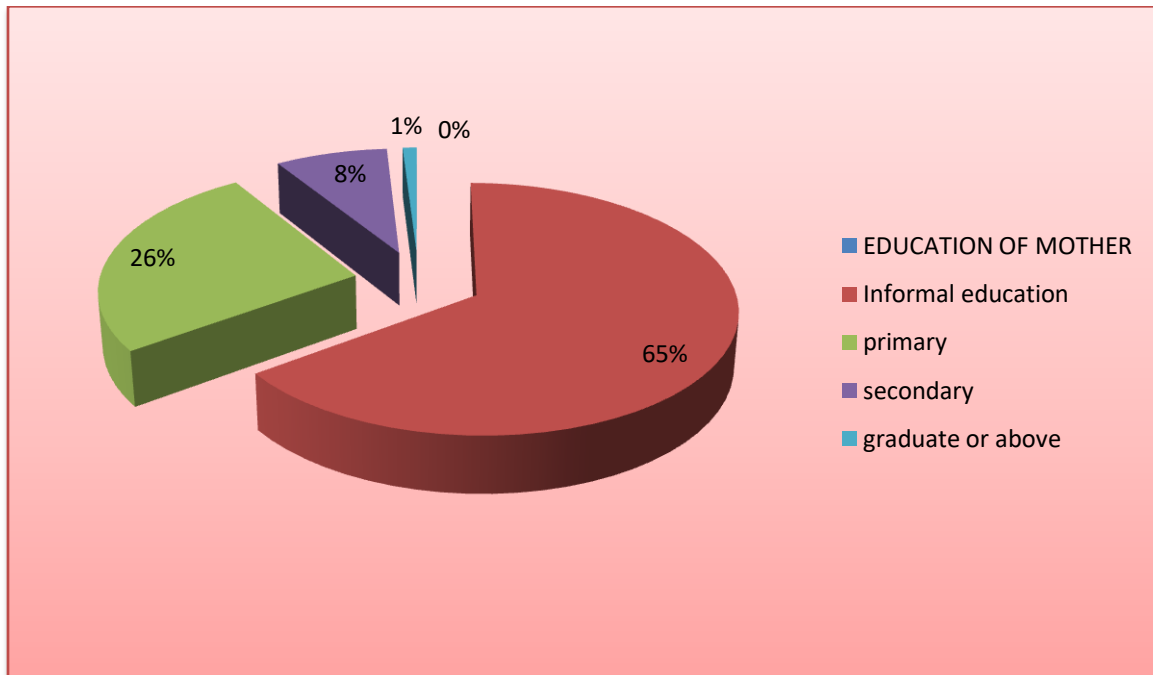


Figure 7:- Pie chart shows the percentage distribution of samples according to the education status of mother.

According to the data, 65% mothers have no formal education, 26% have primary education, 8 % have secondary education and 1 % was graduated.

Section – B

Table 2:-Shows The Frequency And Percentage Distribution Of Level Of Knowledge Among Adolescents Regarding Covid 19.

S.NO.	LEVEL OF KNOWLEDGE	SCORE	FREQUENCY	PERCENTAGE
1.	Good knowledge	8-10	11	11%
2.	Average knowledge	5-7	82	82%
3.	Poor knowledge	1-4	07	7%

The above table presents result related to level of knowledge regarding COVID 19 among adolescents. 11% of samples were having good knowledge, 82% samples were having average knowledge and 7% samples were having poor knowledge.

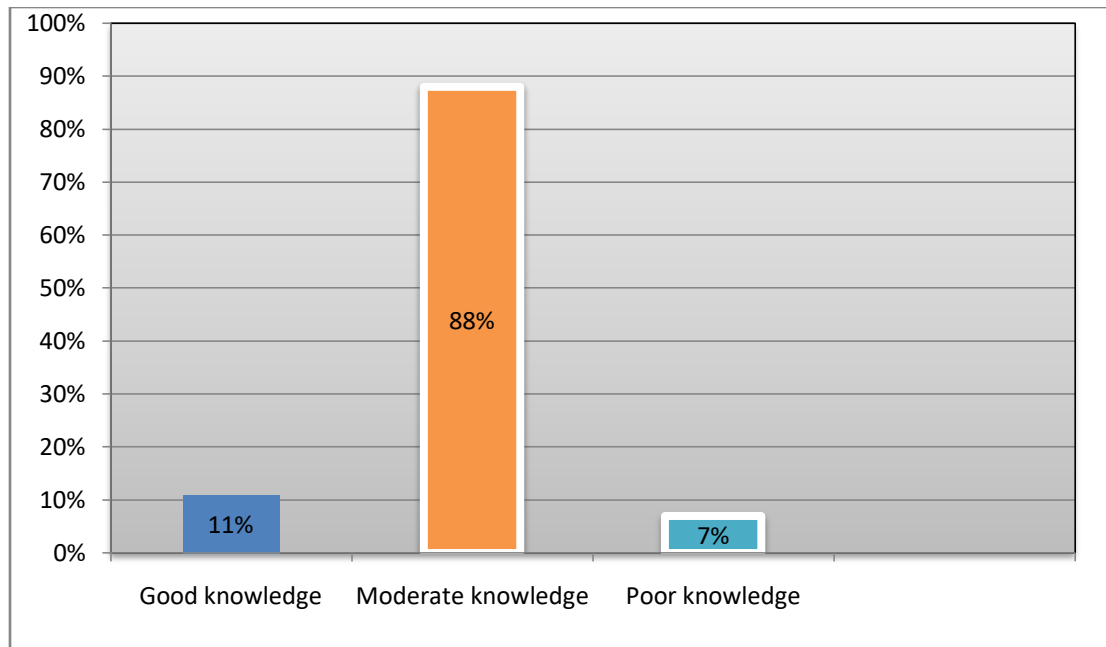


Figure 8:- Bar diagram shows the percentage distribution of level of knowledge among adolescents.

11% of samples were having good knowledge, 82% samples were having average knowledge and 7% samples were having poor knowledge.

Table 3:- Shows Frequency And Percentage Distribution Of Preventive Measures Among Adolescents.

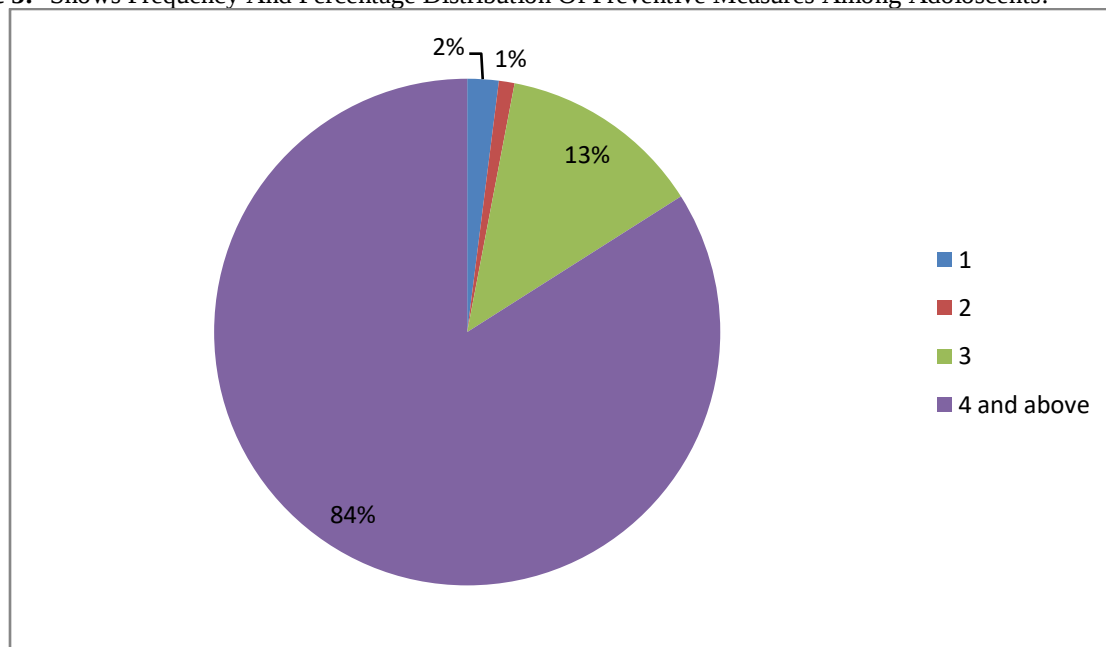


Figure 9:- Pie diagram shows percentage distribution of hand washing among adolescents.

2 % washed hands one time, 1% washed hands 2 times, 13% washed hands 3 times and 84% washed hands more than 4 times.

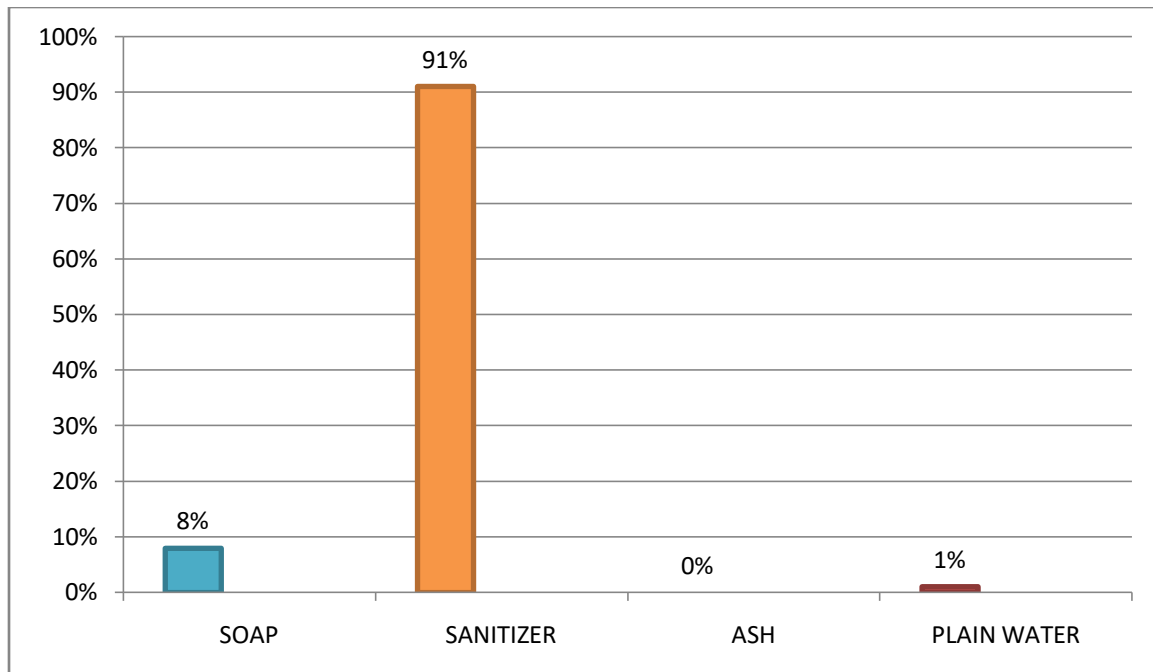


Figure10:-Column diagram shows the percentage distributions of things used for washing hands.

8% used soap for washing hands, 91% used sanitizer for washing hands, 0% used ash and 1% used plain water for washing hands.

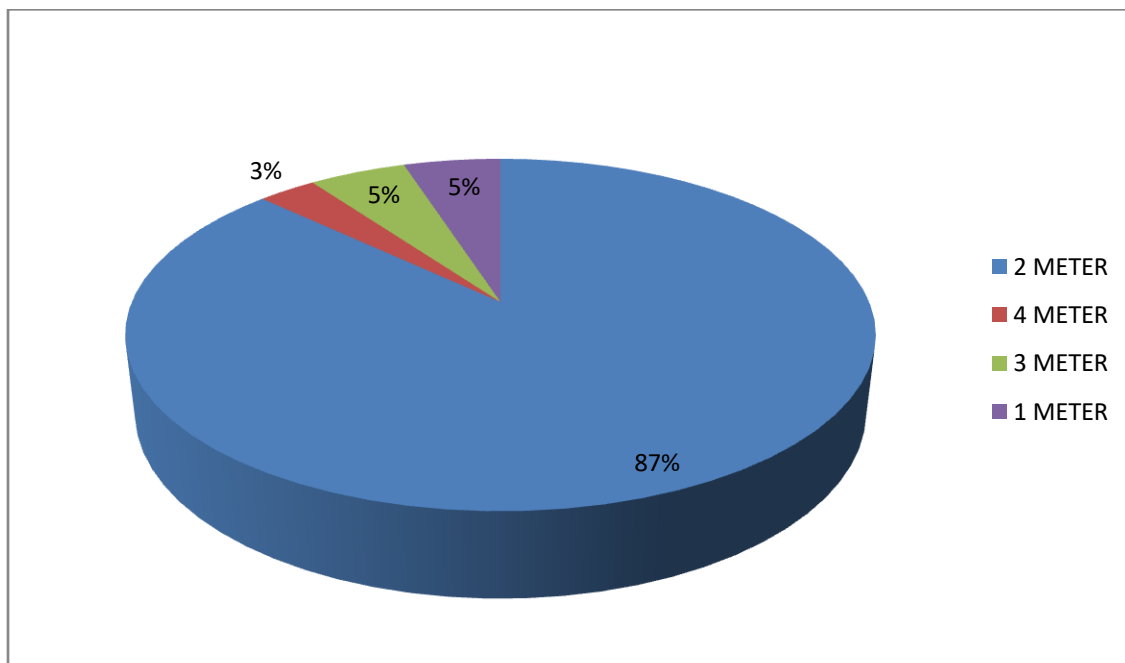


Figure 11:-Pie diagram shows the percentage distribution of distance maintained while interacting with people.

87% samples maintained the distance of 2meter, 3 % samples maintained the distance of 4 meter, 5 % samples maintained the distance of 3 meter and 5% maintained the distance of 1 meter

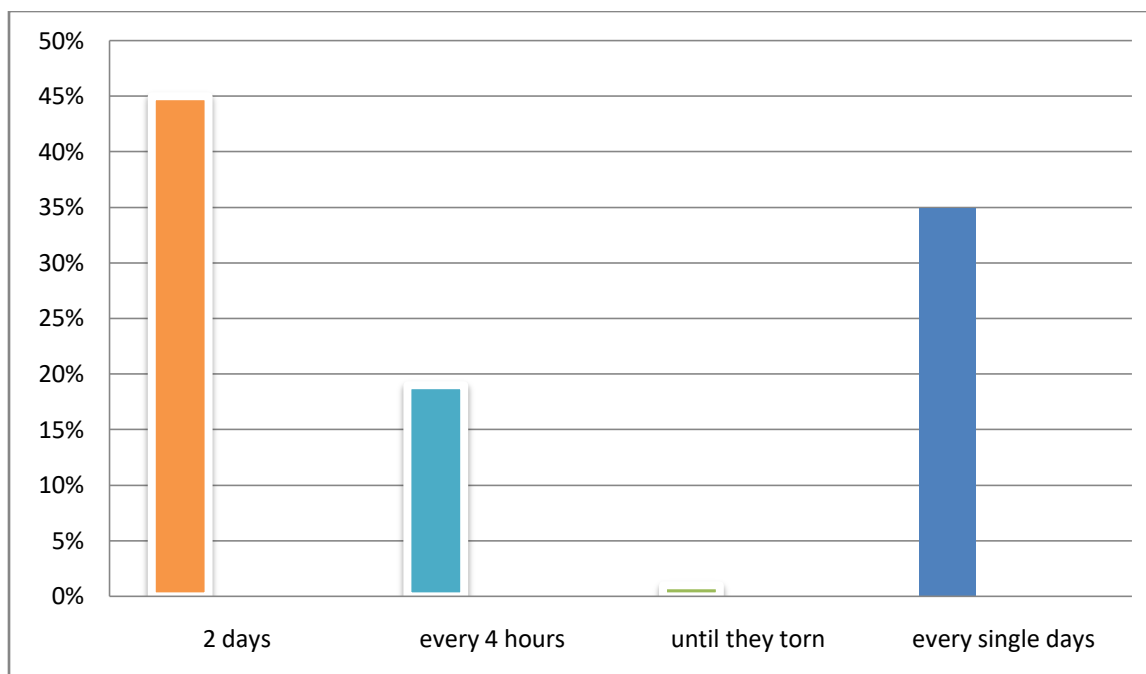


Figure12:- Bar diagram shows the percentage distribution of no of times mask has changed.

45 % samples changed their mask after every 2 day, 19% samples changed their mask every 4 hours, 1% of samples changed their mask after they torn and 35% samples changed their mask every single day.

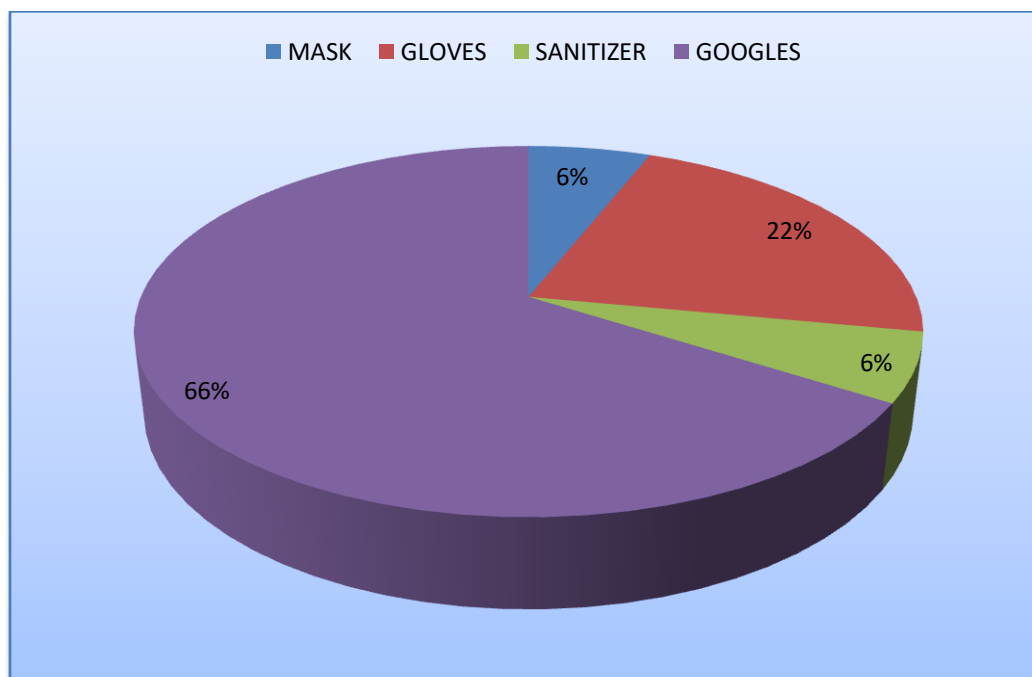


Figure 13:- Pie diagram shows the percentage distribution of preventive measures that are not taken for COVID 19.

6% samples didn't use mask as a preventive measure, 22% samples didn't use gloves as a preventive measure, 6% samples didn't use sanitizer whereas 66% didn't use goggles as a preventive measure.

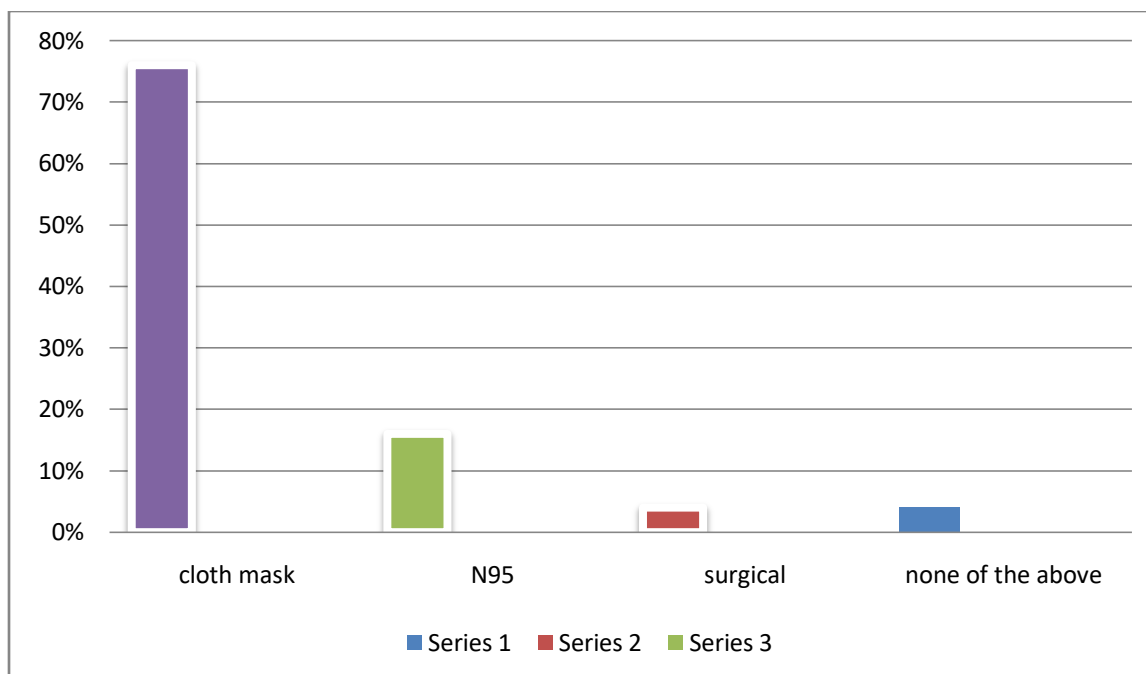


Figure 14:-Bar diagram shows the percentage distribution of types of mask worn by samples during COVID 19.

76% Samples wore cloth mask, 16% wore N95 mask, 4% wore surgical mask whereas 4% didn't wear any of the above mask.

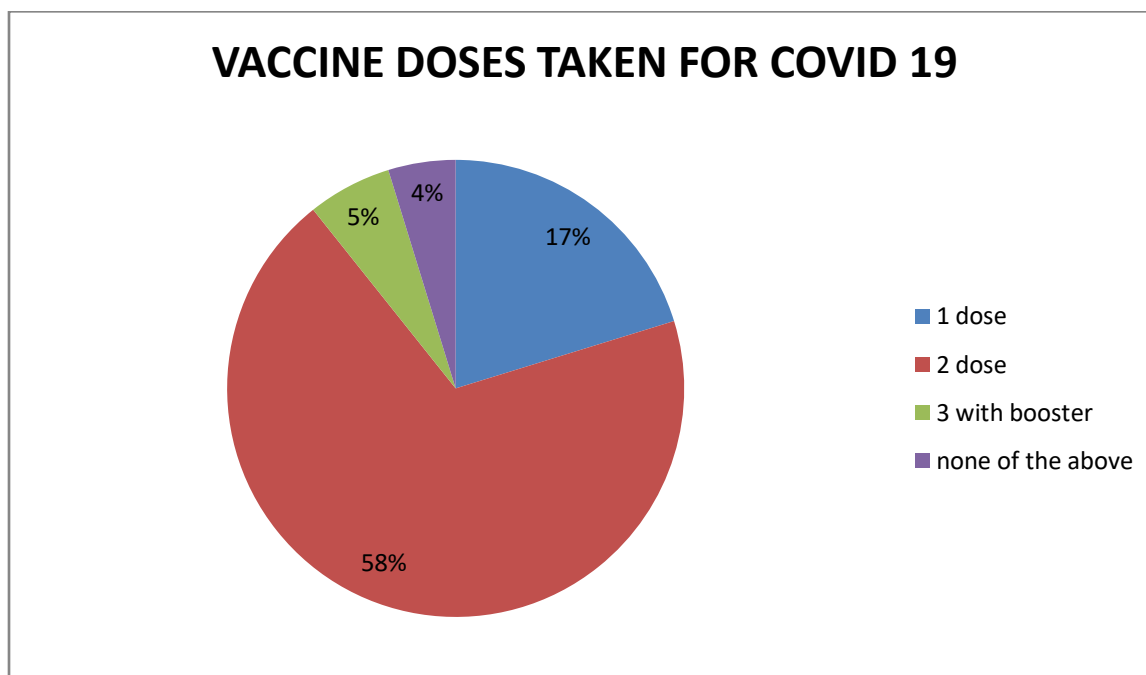


Figure 15:-Pie diagram shows the percentage distribution of vaccine doses taken for COVID -19 among adolescents.

17 % samples have taken 1 dose, 58% samples have taken 2 doses, and 5% samples have taken 3 with booster dose,

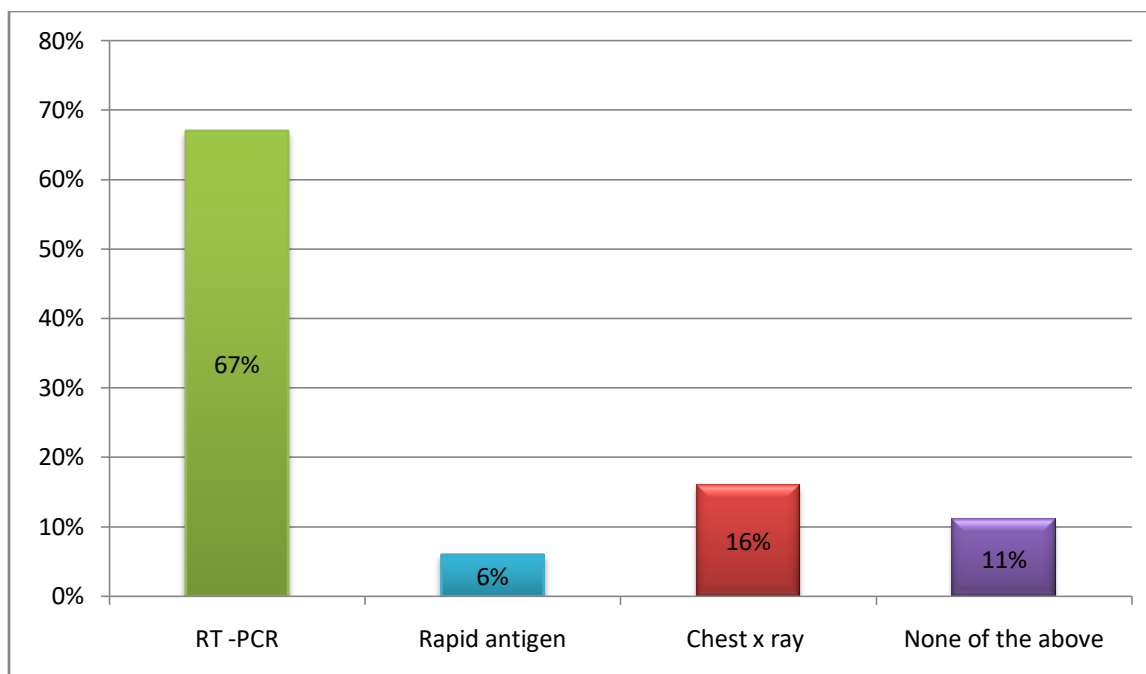


Figure 16:-Bar diagram shows the percentage distribution of diagnosis taken by adolescents.

67% samples took RT-PCR, 6% samples took rapid antigen, and 16 % took samples tool chest x-ray, whereas 11% took no test.

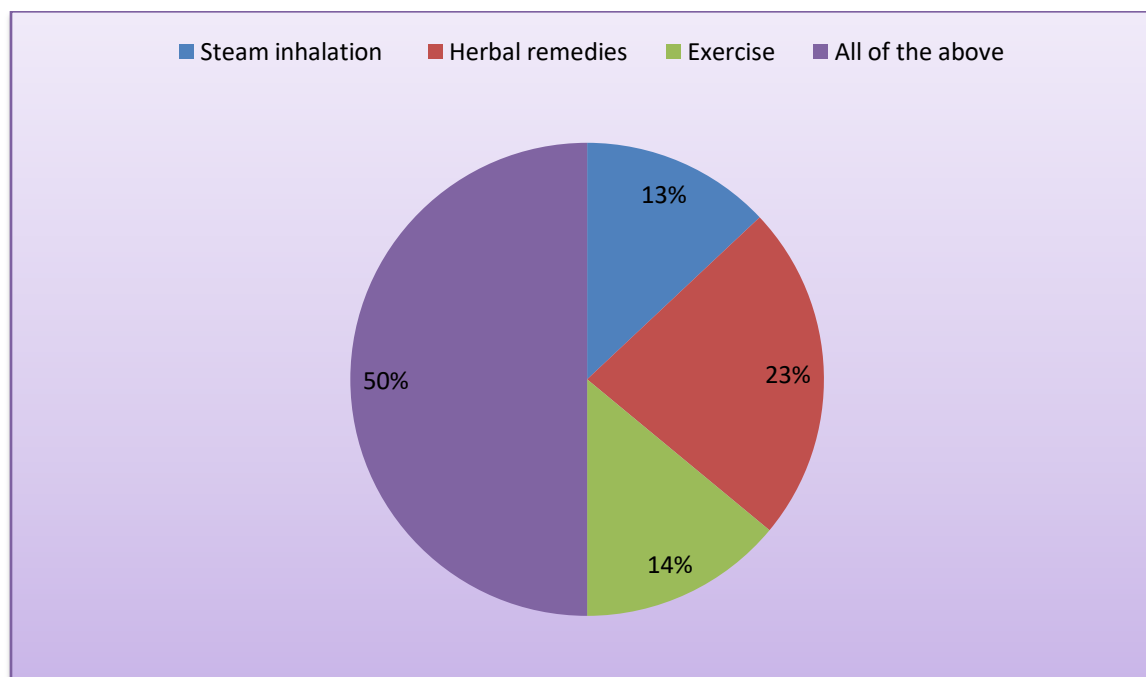


Figure 17:-Pie diagram shows the home remedies used by adolescents for the prevention of COVID 19.

13% Samples used steam inhalation, 23%Samples used herbal remedies,14%Samples did exercise whereas 50%samples took all the preventive measures.

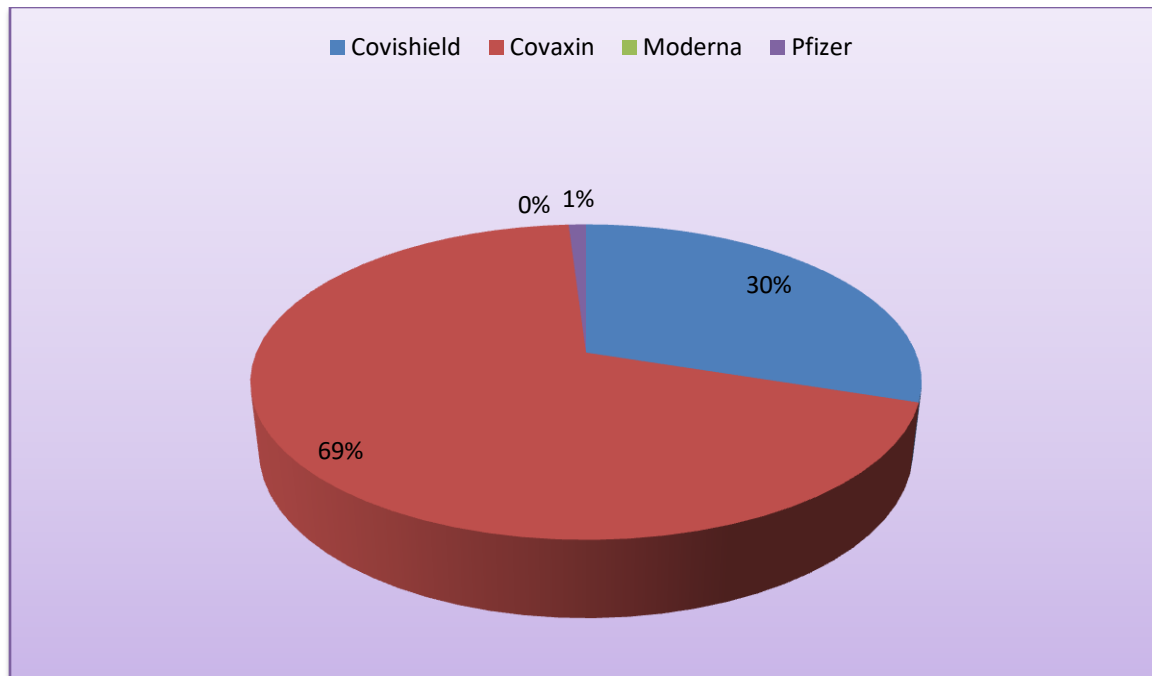


Figure 18:- Pie diagram shows the percentage distribution of vaccines taken by adolescents.

30% samples took covishield, 69% samples took covaxin, 1% samples took Pfizer, and 0 samples % took Moderna.

Section – C

To Find Out The Association Between Level Of Knowledge And Selected Demographic Variables.

This section deals with association between level of knowledge and selected demographic variables.

H1- There will be significant association between level of knowledge and demographic variables.

H2- There will be no significant association between level of knowledge and demographic variable,

S.NO	Demographic variables	Knowledge level			Chi square value	Significance	
		Good	Moderate	Poor			
1.	AGE IN YEAR					7.251 D.F=4	0.861 NS
	13-16	9	74	5			
	17-18	2	8	2			
2.	AREA OF RESIDENCE					2.786 D.F=2	0.640 NS
	URBAN	2	10	1			
	RURAL	10	69	6			
3.	SOURCE OF INFORMATION					4.322 D.F=6	0.670 NS
	TV, NEWSPAPER	7	47	4			
	INTERNET, FREINDS AND FAMILY	4	35	3			
4.	FAMILY INCOME					6.471 D.F=6	0.307 NS
	5000-10000	5	50	7			
	10000-20000	6	30	2			
5.	LEVEL OF EDUCATION						
	NO FORMAL EDUCATION	6	55	6			

	EDUCATED	5	27	1	3.876	0.004
					D.F=6	S

The values in the given table shows that there is no association between the level of knowledge and selected demographic variables.

The result findings exhibited that the one variable that is level of education at 0.004 level of significance had statistical significant association with the knowledge score.

Discussion:-

Discussion of study results means, what does the result or data from the research mean and to interpret result in light of what was already known about the subject and explain new understanding of the problem after taking results into consideration and also explains how the results answer the questions under study. This chapter deals with the discussion of the study results with appropriate review of literature, and study findings which are based on objectives of the study. The present study has undertaken to assess the level of knowledge regarding COVID -19 and its preventive measures among adolescents. The present study was descriptive in nature that was conducted among 100 samples of adolescents fulfilling the inclusion criteria in selected school of SAHASHPUR, DEHRADOON.

Summary

This chapter deals with summary of the study: that is problem statement, objectives, hypothesis, assumption, conceptual framework, findings and key conclusion.

Conclusion:-

On the basis of study results, following conclusions were drawn. The purpose of the present study was to find the level of knowledge among adolescents and preventive measures taken by them for COVID 19. It was found that, majority of the participants (82%) have moderate knowledge, (11%) have good knowledge and (7%) have poor knowledge. Various types of preventive measures were adopted by adolescents, majority of them maintained 3 meter distance, washed hands more than 4 times, used sanitizer, wore cloth mask, have taken 2 doses of vaccine etc.

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